

CITIES SERVICE 1 MONSANTO-NAV-ASSE NE Sec. 21-T40N-R29E APACHE CO. 558

		Black K	oc lo Z	• • •
COUNTY Apache		AREA 50 mi W of Sh	iprock N.M. LEASE NO	Navajo 14-20-0603-1522
Harken So Shusha En	1990,Ca	w. 7-11-73	asto- Black 18th.	<i>6  </i>
Harken So Chuster End Comercian WELL NAME CITIES SERVI	CE OIL	#1 Navajo	Ā	
LOCATION SE.NE			29E FOOTAGE 1980	FNL - 1050 FEL
			STATUS GI-Gas	Well) TOTAL 14-71 D&PTH 6111
ELEV 6383' GR	KB SI	PUD DATE 6-30-/1	COMP. DATE 9	5985 5985
CONTRACTOR Loffland B	ros.		Newto	Polyanting
CASING SIZE DEPTH	CEMEN	T LINER SIZE & DE	EPTH DRILLED BY	ROTARY X
9 5/8" 912	Circ.		DRILLED BY	CABLE TOOL
7" 6111	375 s:	<u>x</u>	PRODUCTIVE	RESERVOIR Penn.
2 3/8" Tbg. 5531	Packe	r @ 5522	INITIAL PRO	DUCTION 7.4 MMCFD-AOF
		<del></del>	<del></del>	2 bbls condensate
FORMATION TOPS	DEPTHS	SOURCE L.L. E.L.	REMARKS	
DeChelly	2738			
Organ Rock	3102			
Cutler	3691			
Hermosa	4442			
Ismay	5036		<u> </u>	
Desert Crk	5178			
Akah	5322			
Barker Crk	5478			The state mototest as
Molas	5779		- Plussea	back of the completed 6-21-94
Miss Lime Miss Dolomite	1 5848			
ELECTRIC LOGS	P	ERFORATED INTERVALS	PROD. INTERVALS	SAMPLE LOG Am Strat SAMPLE DESCRP.
BHC-Sonic, G.R.,	55	553-57, 73, 74, 75,	T 7	SAMPLE NO. 1678
Perf. Depth Control		5, 775654, 55, 56,	5464-5660	CORE ANALYSIS DSTs 5
Dual Ind-Laterolog,		7, 58, 59, 60		D319
Proximity		hole per, ft.		
REMARKS THIS WELL D				APP. TO PLUG
		VED AT PUBLIC HEARIN	G .	PLUGGING REP.
(American-Fuels-Ope	rator of	this well)		COMP. REPORT X
WATER WELL ACCEPTED 1		- Berle	Lelelin e.D.	# 2578904
BOND CO. General In	surance-	Company of America	BOND NO60	338-165(latest
BOND AMT. \$ 25,000		CANCELLED _//-/2-	-86 ORGANIZATIO	N REPORT 4-26-74 on file)
FILING RECEIPT 2893		LOC. PLAT X	WELL BOOK X	PLAT BOOK X
API NO. <u>02-001-20145</u>	<u> </u>	DATE ISSUED 6-21-71	DEDICATION	S/2 NE/4
PERMIT NUMBER550	)			

DRILL STEM TEST

			DKILL 2	ren 1691								
NO.	FROM	то	RESULTS For	RESULTS For details see file								
_1	5060	5107	Rec. 1 bbl. ga	Rec. 1 bbl. gas cut drlg. mud w/ rainbow of oil								
2	5195	5221	Rec. 30 gas ci	Rec. 30 gas cut drlg. mud w/rainbow								
3	5250	5375	Gas to surface	Gas to surface 25 mi. Rec 300' 41° gravity oil								
4	5545	5670	Flowed gas at	Flowed gas at rate of 5.945 MMCFD								
5	5948	6000	Rec 5' drlg m	Rec 5' drlg mud.								
	•		CORE	RECORD								
NO.	FROM	TO	RECOVERY	REMARKS								
				None reported								

### REMEDIAL HISTORY

TE STARTED - COMPLETED	WORK PERFORMED	NEW PERFORATIONS
		· · · · · · · · · · · · · · · · · · ·

ADDITIONAL INFORMATION

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FORM APPROVED UNITED STATES Budget Bureau No. 1004-0135 Form 3160-5 Expires: March 31, 1993 DEPARTMENT OF THE INTERIOR (June 1990) 5. Lease Designation and Serial No. BUREAU OF LAND MANAGEMENT NOG 8707-1139 SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Navajo Tribal Use "APPLICATION FOR PERMIT—" for such proposals 7. If Unit or CA, Agreement Designation SUBMIT IN TRIPLICATE 1. Type of Well Oil Gas Well Other Black Rock # 2. Name of Operator Harken Southwest Corporation

3. Address and Telephone No. 02-001-20145 10. Field and Pool, or Exploratory Area P. O. Box 612007, Dallas, TX 75261

4 Location of Well (Footage, Sec., T., R., M., or Survey Description) 214/753-6900 Black Rock (Paradox) 11. County or Parish, State Sec 21-40N-29E Apache Co., AZ 1980' FNL & 1050' FEL CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF ACTION TYPE OF SUBMISSION \_\_\_ Change of Plans \_\_ Abandonment Notice of Intent New Construction Recompletion Non-Routine Fracturing Plugging Back Subsequent Report Water Shut-Off Casing Repair Conversion to Injection Altering Casing Final Abandonment Notice Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.) 13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)? The subject well was plugged back recompleted in the Paradox formation on 6/21/94 as per the attached downhole schematic. After the tbg & packer were set the wellbore was perforated as follows: 5461, 5360, 5350, 5299, 5211, 5204, 5201, 5198, 5174, 5164, 5162, 5154, 5101, 5099-97, 5065, 4846 & 4844. An acid frac was performed on the perforations with: 1,200 gal preflush 15,000 gal gel 12,000 gal 20% HCl IM S & love 4,000 gal flush ng is true and correct 7/20/95 Title Production Administrator utgomers (This space for Title Approved by \_\_\_\_\_\_\_ Conditions of approval, if any:

Harrist Co

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or representations as to any matter within its jurisdiction

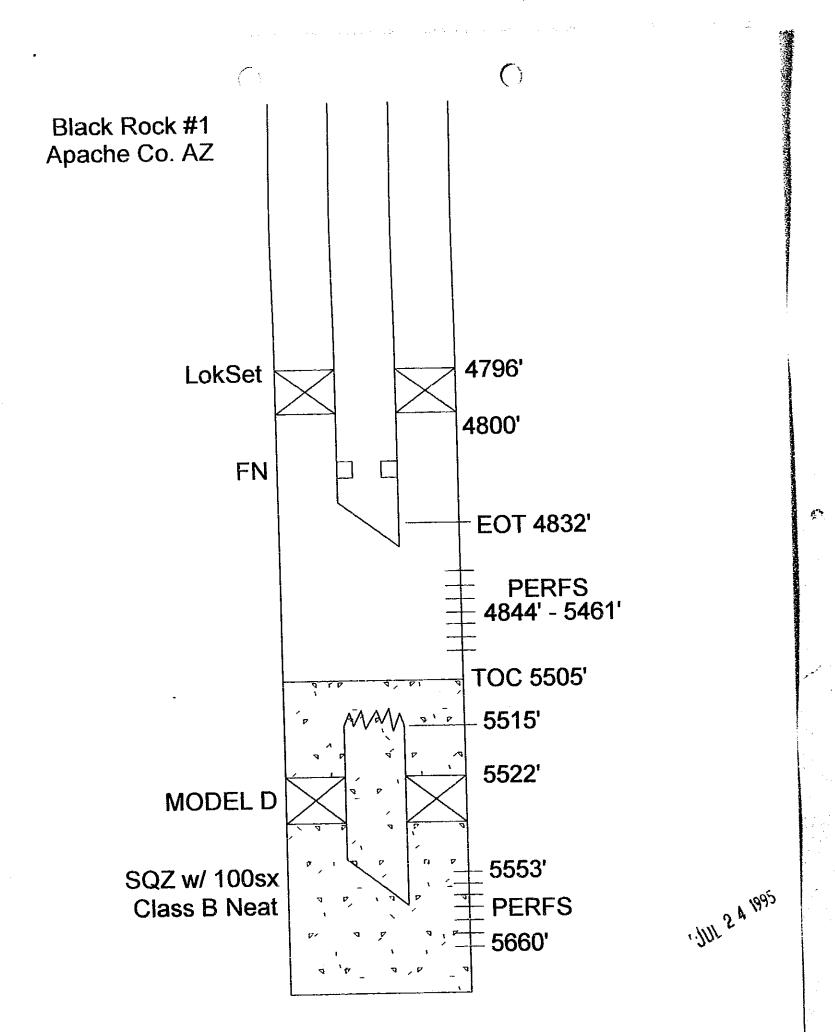
\*See Instruction on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements

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P/N 559

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\	٧٧	<u></u>			APLETION			ETION R			WELL	LOG			
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		TU	BING REG	ORD			•			LINER	RECORI		1		
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(Complete Reverse Side)

Formation	Тор	Bottom -	Description*
Akah Lime	5060	5107	DST #1. No water cushion. 5/8" bottom choke. Opened for 15 min preflow, strong blow gas in 5 min. Closed for 90 min. Opened tool for 90 min flow period.
			Flowed gas at rate of 318 MCFD on 5/8" choke W/25 psi flow pressure. Closed tool for 90 min FSIP. Recovered one bbl. gas cut drilling mud W/rainbow
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ş	,	of oil in drill pipe. Pressure on 15 min preflow 53# to 107#. ISIP 1418 (90 min). IFP 80#, FFP 80# (90 min), FSIP 615 (90 min), BHT 115, MCP (in & out) 2462.
Barker Creek	5195	5221	DST #2. No water cushion, 3/4" bottom choke, 5/8" top choke. Tool opened for 15 min preflow with weak blow. Shut in for 90 min ISIP, then opened well for 60 min
			flow period. Weak blow throughout test. No surface pressure. Shut in for 60 min FSIP. Recovered 30 to 1
*. * : 		<b>,</b> , , ,	gas cut mud W/slight rainbow of oil. Preflow 53 psi, 90 min ISIP 373 psi, IF 53 psi, FF 53 psi, 60 min FSIP 320 psi, MCP in & out 2489 psi, BHT 108° F.
Atoka	5250	53 <b>7</b> 5	DST #3. No water cushion, 3/4" bottom choke, 5/8" top choke. Tool opened for 15 min preflow W/weak blow. Closed for 90 min ISIP. Re-opened for 90 min
			flow period. Gas to surface in 25 min. W/good blow decreasing to weak blow. No surface pressure. Closed tool for 90 min FSIP, recovered 300 of 41 gravity
	•		oil and 300° of heavy oil and gas cut drilling mud.  15 min preflow 80 psi 107 psi; 90 min ISIP 2301
. <b>n.</b> .			psi (incorrect); IF 134 psi; FF 214 psi; 90 min FSIP 1086 psi, MCP (in & out) 2516 psi, BHT 120° F.
L. Pinkerton Trail	5545	5670	DST #4. No water cushion, 3/4" bottom choke, 3/4" top choke, opened tool for 15 min preflow, flowed
•			with strong blow. Gas to surface in 4 minutes. Closed tool for 90 min ISIP. Re-opened with strong blow increasing to 550 psi max. surface pressure
u tomalija si			on 3/4" choke, decreasing to 410 psi at conclusion of test. Gas rate 5.945 MMCFD. Closed tool for 90 min
			FSIP. Recovered 300 of heavy gas cut mud W/trace of condensate. 15 min preflow 535 psi562 psi; 90
			min ISIP 1525 psi, IF 481 psi, FF 669 psi, 90 min FSIP 1499 psi, BHT 120° F. MCP (in & out) 2651 psi.
Upper-Miss	5948	6000	DST #5. No water cushion, 3/4" bottom choke, 3/4" top choke. Opened tool for 15 min preflow. No blow.
	. ,		Closed tool for 60 min ISIP. Re-opened for 60 min flow period. No blow. Closed tool for 60 min FSIP. Recovered 5' of drilling mud. 15 min preflow 53 psi-
71 17 27 2			133 psi, 60 min ISIP 1379 psi, IF 53 psi, FF 80 psi, 60 min FSIP 347 psi, MCP in 2992 psi, MCP out 2886 psi

<sup>\*</sup>Show all important zones of porceity, detail of all cores, and all drill-stem tests, including depth interval tested, oushlow used, time tool open, flowing and shut-in pressures, and recovertes.

INSTRUCTIONS:

Attach drillers log or other acceptable log of well.

This Well Completion or Recompletion regard and well log shall be filed with the State of Arizon will & Gas Conservation Commission not later than thirty days after project completion.

Form No. 4

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al reserve

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SUN	Y	NOTICES	AND	REPORTS	UN	V.	LLS

1. Name of Operator.	Harken Southwe	st Corporat	cion	·	
•		IER []	(Specify)		
3. Well Manse	Black Roc				
Location		050' FEL			
Src. 21	1wp. 40N	Rgn	29E County .	lpache	_, Arizane.
4. Federal, State ar ti	ulian Lease Number, or lessor's r	name If les leass _	NOG 8702-1116		
	Navajo Tribal	Lease			
5. Field or Pool New					······································
8. Check Appropriate	to the to the state of the sign of the sig	ce, Arport, or Oth	er Date		
N	DIICE OF INTENTION TO:		SUBSECUENT	REPORT OF:	
TEST WATER SHUT FRACTURE TREAF SHOOT OR ACIDIZE REPAIR WELL (OTHER)	DIBECTIONAL.	SING	WATER SHUT OFF FRACTURE TREATMENT SHOOTING OR ACIDIZING  (OTHER) WORKOVER	MODITHLY PROGRESS REPAIRING WELL ALTERING CASING ABANDONMENT	s
			(NOTE: Report results of multiple	e completion on Well Cor port and Log form.)	mpletion
Accaened 1	or your records pre		.M approved procedure to	, not nove, one	3425
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8 Thereby coulty of Signed Rach	relle & Outgo	eci. Mery	Production Administ	rator 6/24/	194

FORM APPROVED UNITED STATES Form 3160-5 Budget Burezu No. 1004-0135 (June 1990) DEPARTMENT OF THE INTERIOR Expires: March 31, 1993 5. Lease Designation and Serial No. BUREAU OF LAND MANAGEMENT NOG8702-1116 SUNDRY NOTICES AND REPORTS ON WELLS 6. If Indian, Allonee or Tribe Name Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals Navajo Tribal 7. If Unit or CA, Agreement Designation SUBMIT IN TRIPLICATE 1. Type of Well Odl Swell Other 8. Well Name and No. Black Rock 1 2. Name of Operator 9. API Well No. Harken Southwest Corporation

3. Address and Telephone No. 501 Airport Drive, #158 Farmington, N.M. 87401
4. Locanon of Well (Footage, Sec., T., R., M., or Survey Description) 10. Field and Pool, or Exploratory Area Black Rock 1 11. County or Parish, State 1980'FNL - 1050'FEL Sec. 21, T40N, R29E Apache County, Arizona CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF ACTION TYPE OF SUBMISSION Change of Plans Notice of Intent \_\_\_ Abandonment Recompletion New Construction Plugging Back Subsequent Report Non-Routine Fracturing Water Shut-Off Casing Repair Final Abandonment Notice Conversion to Injection Altering Casing Dispose Water Completion or Recompletion Report and Log form.) 13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\* we recommend to plug back and recomplete as per enclosed procedure. (See step 15) JUN 1994 Title Production Dechnician  $f_{i,k}$ Date 6-10-94 (This space for Federal or State office use) まててひじょのそ

\*See instruction on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person kno or representations as to any master within its jurisdiction.

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#1 Location BIK RK #1 Directions

Sect. 21, T40N, A 29 E

Aparle Co., Anizonn 2 mi to location Pond From Y to gami 2.5 mi. to Y Turn Right. Box State Lieu mm 458 Tecnspos Becabito 2000. St. Callup Iship rock ship nale E

HARKEN SOUTHWEST CORPORATION

FRM

**BLACK ROCK#1** 

Black Rock Field, Apache County, AZ RECOMPLETION PROCEDURE 4-5-94

WELL NAME:

Black Rock 1-21-40N29E No. 1

LOCATION:

Section 21, Township 40N, Range 29E

1980' FNL, 1050' FEL

LEASE NO:

NOG 8702-1116 COUNTY/STATE: Apache Co., Arizona

ELEVATION:

6380' GL; 6396 KB

TD:

6111' -5995' CIBP ---

PBTD: -

5985'-5995' Cement Plug

SURFACE CSG:

9 5/8", 32.3#, H-40 @ 912'. Cint to surface w/lite cement.

7", 23.0#, K-55 @ 550'; 26.0# K-55 550'-6111'

PROD. CSG:

Cmt to 4280' (temp. survey) w/375 SX Class C

PROD. TBG:

2 3/8", 4.7# J-55 EUE

OIEER:

Model "L" Sliding Sleeve @ 5454"

Model "F" Nipple @ 5488"

PACKERS:

Loc-Set @ 5198'

Model D @ 5522' PERFORATIONS: Penn. Desert Crk: 5266-5270': 5 holes

Penn. Barker Crk: 5553, 5557, 5573-77: 7 holes

Penn. Pinkerton Trail: 5654-60": 7 holes

LAST TEST:

6 MCFD @ 45 psi tbg. pressure

PROD. ZONE:

Pennsylvanian Paradox: Lower Barker Creek and Pinkerton Trail

REFERENCE LOG: BHC/GR Dated: 7/29/71 @ 6396' KB

NOTE:

See attached Downhole Configuration sheet for location of cement plugs

and perforations.

Plug back above Barker Creek and perforate and Add Frac. mermosa,

Lower Ismay, Desert Creek and Akah.

Casing/tbg.	id(in)	<u>drift id(in)</u>	Burst (psi)	Collapse (psi)	Yield (lbs)
2 3/8" 4.7 #J-55	1.995	1,901	7700	8100	71730
7" 23# K-55	6.366	6.241	4360	3270	******
7" 26# K-55	6.276	6.151	4980	4320	

10°£

PROCEDURE

- Blade roads to location. Locate anchors and stake. Dig safety blow down pit and spot
   400 four 500 bbl test tanks. Load one tank with minimum of 300 bbl lease water for workover and potential kill fluid and use second for swab/test tank. File sundry with BLM.
   Accumulate lease water prior to starting work.
  - 2. Inspect surface casing, braden head and well head valves.
  - 3. Instail necessary reference gauges, safety valves, and flowlines. Anchor as necessary.
  - 4. RU H2S monitoring equipment and hold H2S certification class for all hands.
  - 5. Check csg backside pressure and report to Grand Prairie office.
  - 6. Rig up workover rig and lay flowlines.
  - 7. Blow down casing and the and monitor pressures and gas rate.
  - Pump 50 bols water down the to kill well. If well takes more allow to load. ND WHD
    and NU BOP.
  - 9. Install flow lines to diverter system and pressure test to 1500 psig.
  - 10. RIH with tear drop standing valve on sancline to Model "F" FN @ 5488'. Pressure test tubing to 1500 psig. Report results to Grand Prairie office.
  - 11. Shoot fluid level on backside to determine fluid level. Load backside with lease water and pressure test casing to 1500 psig. Monitor and record pressure on backside and tubing to verify packer, tubing, and casing integrity. Report to Grand Prairie office. If we determine that there are major casing integrity problems, we will proceed with P & A procedure. If any problems we will solicit CHAP for approval of further action.
  - 13. Attempt to release Baker Lock Set packer set at 5,198' under the supervision of Tool Hand. Release procedure is to pick up 3000 to 6000 lb. above tubing weight and rotate 8 to 10 times to the right. Continue to rotate to right with coming up hole to be sure slips are released and set in the unlocked slot. If unable to release packer, continue to next step. If packer releases go to step #14.
  - 13. RIH with 2 3/8" tubing cutter and cut off tubing 5' above Model 'D' Packer set at 5522'.
  - 14. Reverse circulate fresh water down back side over packer to circulate out cuttings.

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- TOH standing back of LD Lock Set Packer, Model 'L' (ling Sleave, "F' Nipple, and seal mandrill. Note: If any drag/tight spots and depth of same. Inspect tbg. and replace as needed.

Sting into Baker Model D packer at 5,522'.

Establish injection rate.

Mix and pump 100 sacks of Class B Cement while dropping 25 RCN Ball Sealers at equally spaced intervals.

Displace cement to within 1.5 bbls. of the packer.

Sting out of the packer and dump 1.5 bbls. of cement on top of it.

Pull one joint of tubing and reverse out.

Come out of hole with tubing.

- 17. Make cleanout trip if needed with 6 1/4" bit and 7" scrapper (call Grand Prairie office for go ahead). PU 7" 26# lock set completion Packer, 1 jt. 2 3/8", 2 3/8" FN and RIH on 2/8" tbg to 4790'. Circulate packer fluid (fresh water mixed with corrosion and sulfide cracking inhibitor and oxygen scavenger) down back side to packer and set.
- 18. Swab down to 4500'. ND BOP's and NU WHD, Release Rig.
- 19. RU perforators with mast truck. Install lubricator. Run GR/CCLfrom PBTD to 4700' and correlate and correct depth to reference log. RIH with 1 9/16" or 1 11/16' decentralized perforating gun and perforate the following intervals at 1 SPF, 0 degree phasing.

Perf Depths	Net Pay Thickness	# of Shots	Zone	Gress Pay Taickness
4840', 44', 46'	7	3 shot	Hermosa	12'
5065'	2'	1 shot	Upper Ismay	10,
5097', 98', 99'	4'	5 shots	Lower Ismay	14'
5100', 01	·			
5154'	2'	1 shots	Lower Ismay	8,
5162', 64'	4'	2 shots	Lower Ismay	10'
5174'	2' ·	1 shots	Lower Ismay	3'
5198', 5201' ,04	6'	3 shots	Desert Creek	26'
5211'	3'	1 shots	Desert Creek	9'
5299'	2,	1 shots	Desert Creek	4'
5350', 60'	2'	2 shots	Akah	8'
5461'	3'	1 shots	Akah	10'
TOTAL	36	21 shots.		114

In addition to the above, existing perforations are 5266'-5270' in the Desert Creek which swab tested 10 BOPD.

Note:

- 1). Depths to be correlated to the Schlumberger Compensated Sonic Log Dated 7/29/71, Run #1.
- 2). Report fluid level drop to Grand Prairie office.
- 21. Flow well if capable for 1/2 hour call Grand Prairie with results.
- 22. RU Service Compnay for acid frac. Instail tree saver. Pump lease water down tbg. until formation is loaded (min 1200 gal.). Pressure up to 1000 psi on back side and monitor thru job.
- 23. Pump 15,000 gal. of 40 lb/1000 gal X Link Gel at 20 BPM. Do not exceed 4500 psi.
- 24. Pump 12,000 gal. of 20% HCI at 20 BPM. Do not exceed 4600 psi.
- 25. Pump thg. capacity plus 2000 gal of lease water at 20 BPM. Do not exceed 4600 psi.

Total FW req'd = 15,000 gal. (357 BBLS) Total 20% HCI = 12,000 gal. (286 BBLS) Total Lease Water = 4810 gal. (114 BBLS)

Acid to contain inhibitor, nonemulsifier and iriction reducer.

- 26. Obtain ISIP, 5 min. SIP and 10 min. SIP.
- Open well immediately and flow with no choke until rates dictate for safety well needs to be choked. Turn to test separator once well cleans up and gauge gas/water/oil and pressures. Report as needed to Grand Prairie. RD service Company.
- 28. If well dies, RU swabbing unit, swab well back until cleaned up and flow test through test separator to obtain fluid and gas flow rates and pressures. Report data to Grand Prairie office as advised.
- 29. Flow two hours minimum, or as deemed necessary by Grand Prairie office, under stabilized flow or until cleaned up and shut in well for 72 hours surface pressure build up. Shoot fluid level at end of build up.
- 30. Release to production department.

Note:

Engineer to account for and report on Daily Completion Report all fluids injected into and removed from well bore during completion operations.

WELL RECORD CPERATOR: CITIES SERVICE OIL FORM COUNTY/STATE: A E COUNTY, ARIZONA LERSE DESIGNATION 4: 14-20-0605-1522 TRIFE HIVE: HAVAIO wit fac: LEASE MOVE: MOVESHITO-WAYAGO "A" E 1: 1 FIELD: BLACK ROCK SURVEY: 1980 FRL 1 1050 FEL SECTION: 21 точенг: 40 к ROHÆ: 25 E ELEVATION: 658) (68) TD: 6111' 2513: SSSS' KELL SCHOOLING CASING DATA SHE HEIGHT TYPE BUTTON SACIS OF ಾರ್ ಆ ಆಗ 9-5/8 32\_30 912 డు SEXTE 53 1 55 6111 325) 9-5/81 32.304 9 9121 LOSSINS BATA Copany MIES AL 2-3/3" 4.74 DE The Look Set Parker 8 51681 PROTESTITY £104-911 Skah gerfs Accel "L" Sleeve & 5454' ener prese Vil 6105-310 6104-310 Hodel "F" Nipple & 5A22" FORMATION LOS TOPS Acces 13, becam 8 2231 Banker Greek peris Rechercy & 2735' HERE CHECK & SITE o±e>+ 3000 € 3105; ### \$ EXE Punkerson Trail perfs ಯಾವಾ ಕ ಜನ್ಯ: POWER CREEK : 2423. 2575: 5565! | NUMBER Const. All Professional States PREFINE TAIL SEEN क्तः क्षाः 🚽 E≅GY à DiŒ' PTLPS # 58001 PRODUCTIVE RESERVABLE FENERALISMEN 1025 102Y 8 50501 #186186174184 9 58701 COMPLETION RECORD PERFORATIONS THE RECE FORMATION 35<u>7.7%</u> 180 H 180 H THE PERSON THE LEWIN SERVICES ere cer EED-57, 73, 74, 75-77 1 Shouth 1.31 Jan 1871 15 5.5.-5358 17 himie 1 54681 2-3/8 PEMERICA TRAIL 524-550 1 Shot/ft 1/2\* Jen 1571 AKAn \$255-3270 | Sheri/ft 1/2" Jen | 1571 PACKER DATA REFERENCE LOS **XISCELLANEOUS** 3411 ब्लास्ट स्थान्ट COPHRY LOS TYPE DATE RUN KE المحت المحتددة 5138 34C/53 | 7/25/71 | \$296| HODEL "D" PACKER C:35 STIBULATION REBARKS DATE INTERVAL SIZE & TYPE AIR BEFORE AF IES STATUS: SHUT-IN 1971 SHEETS CHEEK | 5000 BM 120 HEY 3-11/5 KIZI 1971 368/58 CEEK 10000 321 382 HC 6-1/2 1.27. 3000 TEST DATA 1571 PINGRICH TRAIL 4000 gal 15% HEL 4-1/2 37 RW 3125 IP: 4 PT: CFOF = 7.4 #CF P/9 12 9CF9 1971 **\$** #: 14000 gal 155 Hz. 4-1/2 15 36 220 DST DATA (X1 PVT [ ) CORE [ ) BHP [ ]

T CLEANER !

MELL RECORD COUNTY/STATE: A E COUNTY, ARETON CREATOR: CITIES SERVICE DIC FRAN unit has: TRIFE HAVE: HAVAUG LEASE DESIGNATION 1: 14-20-0603-1522 SURVEY: 1980 FRL 1 1980 FEL FIELD: BLACK ROCK EL 1: 1 LERSZ HOWE: MONESHITO-HAVALIO "A" P979: \$885' TD: 6111' ELEVATION: COMP (CE) ROASE: 25 E TEASHIP: 40 K SECTION: 21 CASING DATA DITAGEZZ 1:34 BULL STATE | SEC. 2011 | क्ट ६५ व्या SHE Eight Die  $5 \infty \infty$ 912 డు 9-E/8 32.30 350 375 6111 133 1 35 LOSSING BATA 55/8° 32.304 6 512° : N: E MEXM البيشين TALK 8-3/8" 4.74 RE This 7/35/7: 7/35/7: 7/30/2: 5099-911 6104-911 242/22 YTERE 1389 Feet St. Danter & SIGN HEUTRICH PLANS DIL Akah peris Accel "L" Slame 8 5454" 7/30/71 Model "F" Hippiz & 54621 FORMATION LOS TOPS Your Parker & 500 TERRY CARRY & SITE! اقتات م بستطرجا Berker Greek gents 444 ÷ 222 @### #### € 210£\* MARIE CARROL & SATE ಯಾತಾ ಕ ಚಿತ್ರೇ - Punkerson Trail parts SERVICE TRAIL & TEMP Takes 1992 (1992) וווווווון יפבבי ההפק TE ( 55) XO\_XS € 5800° :≅48 € 1935. कः हाः।' 🚽 WISSISSIPPINA & SENS. LOZE LOWY & BOSE! PROUDTIVE RESERVIRE FEACULARIES PERFORATIONS COMPLETION RECORD 12: 1 ETE 54:5 35-146 36-146 FORWATION ಸಾವರ್ಣ ಹಲಾಣ SIZE | MEST | THE | LEWIN | SERT HIPPLES 550-5, 72, 74, 75-77 | Securit 1.3° dec 1571 SHER CHER 1. 5.5.-5454° 17° hispie 1 5468° 1 Sact / ft 1/2" Jen 1571 2-3/8 1984-55A) PRINCESON THAT 1 Sectifit 1/2" Jen. 1571 1255-1270 AYAn DATA PACKER RISCELLANGOUS REFERENCE LOS <u>ಆಗಗಿಕೆ</u> ಜಾಗಿನ TYPE COPPANY LOS TIME BUN KE THE SEL MEGES STAINERSER S-C/SR 7/29/7: SSK 5522 MODEL AD LACKES 5005 C:3º STIBULATION REMARKS क्षाहर AIR BEFORE INTERVAL | SIZE & TYPE DATE KTET STATUS: SAUT-IN Series (2006 gal 153 HTL 3-1/2 1971 1,294 5000 TETA 343453 CSER 1000 321 282 HCL 5-1/2 1971 TEST DATA 3.444 9750 PINCERTON TRAIN 4000 gal 15% HE 4-1/2 1571 IP: 4 PT: CFCF = 7.4 PFCF P/B 12 9CFD 15 36 229 4000 gal 155 HZ 4-1/2 1971 冷汗 DET DATA (11 PAT ( ) CORE ( ) BAP ( )

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SECHMATIC OF 'ONSANTO-NAVAJO "A" 1 Sec. 21 T40N R29E Apache County, Arizona

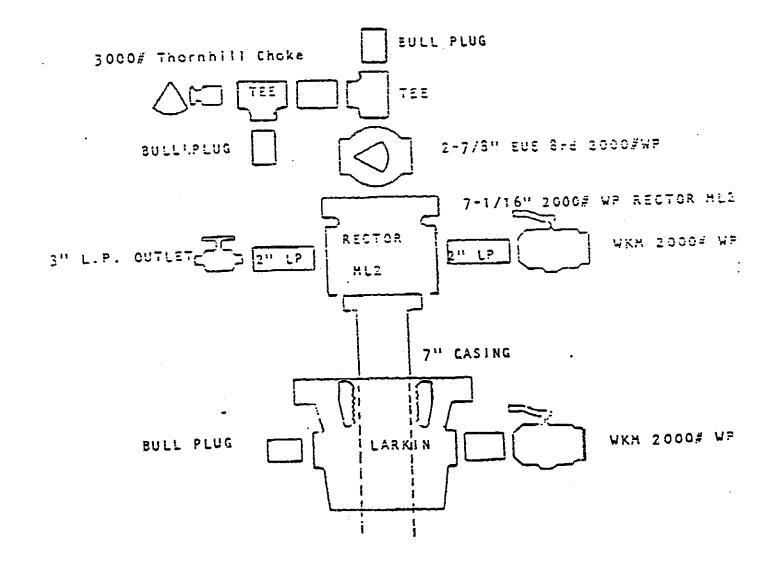
\_ 9-5/8" 32.30# @ 5121 Dmt. w/350 sacks Light cement to sunface 2-3/8" 4.7# EUE Tubing 📑 Baker Lock Set Packer & 5196' i penn. Akah perfs @ 5255' - 5270' Model "L" Stiding Sleeve @ 54547 Model "F" Nipple & 5488' Model "D" Packer @ 5522' # Penn. Barker Creek perfs @ 55531, 55571, 55731 - 55771 = Penn. Pinkerton Trail perfs @ 55541 - 55501 Cement Plug from 5955' - 5985' CIBP @ 59951 Miss. Dolomite perfs @ 6014' - 5020' TD @ 7" 23 & 25# @ 6111' Cmt. with 375 sacks 61111-Cmt. w/375 sacks Class "C" cement

(SEE ATTACHED SHEETS FOR DETAILS OF STIMULATION AND TESTS)

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SECTION 21 TOWNSHIP: 40 N RANGE: 29 E MCNSANTO-NAVAJO "A" #1 APACHE COUNTY, ARIZONA

## CURRENT WELLHEAD SECRMATIC:



Service Control of the Control of th

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# SUNDRY NOTICES AND REPORTS ON WELLS OCT 2 5 1989

Chuska Energy Company 315	N. Behrend Avenue, Farmington, NM 87401
,	(Specify)
nil- nada #1	
J. Well Walla	
Location 1930' FNL & 1050' FEL	
	29E County Apache Arizone.
4. Faderal. State or Indian Lease Number, or lessor's name if fee lease	
5. Field or Pool Name Black Rock Paradox	
6. Check Appropriate Box to Indicate Nature of Notice, Report, or Ot	
NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF PULL OR ALTER CASING DIRECTIONAL DRILL PERFORATE CASING CHANGE PLANS (OTHER)	WATER SHUT-OFF MONTHLY PROGRESS FRACTURE TREATMENT REPAIRING WELL SHOOTING OR ACIDIZING ALTERING CASING ABANDONMENT (OTHER) First Delivery XX
	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)
First delivery of gas at 1600 hours Estimated rates: 3940 MCFD, 6 BCPD,	, 9/29/89. O BWPD, FTP 660 psi.
8. I hereby certify that the foregothy burne and correct.  Signed Donald S. Barnes	Operations Manager 10-20-89  STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Sundry Notices and Reports On Wells File One Copy

Form No. 25

559

Permit No.

Form 3160-5 November 1983) Formerly 9-331)	DEPARTM BUREAU	INIT STATES ENT OF THE INTERI OF LAND MANAGEMENT	<u> </u>	Budget Bureau Budget Bureau Expires August  5. LEASE DESIGNATION  NOG-8202-11  6. DF SEDIAN, ALLOTTES	31, 1985 AND BREIAL NO.
Do not sue the	UP TOTAL PROPOSAL	CES AND REPORTS ( la to drill or to deepen or plug be rion for PERMIT—" for such p	ON WELLS back to a different reservoir. poposais.)	NAVAJO	. W D
OIL GAE WELL WELL 2. HAME OF OPERATOR		NERGY COMPANY		8. FARM OR LEASE FAI Monsanto-Navaj	dk
P.O. BOX	901 FARMIN	GTON, NEW MEXICO 874	199	9. WALL BO.	
4. LOCATION OF WELL Bee also space 17 b At surface	elow.)	early and in accordance with any	; ·	Wildcat 11. EDC. T. R. M. OR SURVEY OF AUR. Sec. 21 T40N	R29E
14. PERMIT NO.		18. REPATIONS (Show whether B		Apache	Arizona
16.	ROTICE OF INTE	•	Nature of Notice, Report, or augustic	Other Data  QUENT REPORT OF:  BEPAIRING	
PRACTURE TREAT BROOT OR ACIDIES REPAIR WELL, (Other) WOR	KOVER PROGR		Completion or Recon	ALTERING ABANDORM the of multiple completion pletion Report and Log is	on Well
17. DESCRISE PROPOSE proposed work. next to this wo	II Aer a citect	ERATIONE (Clearly state all pertinonally drilled, give subsurface in	ent details, and give pertinent date cations and measured and true vert	es, including estimated & ical depths for all marks	ate of starting any ers and sones perti-

1. ATTACHED IS A PROPOSED WORKOVER PROGNOSIS FOE THE ABOVE REFERENCED WELL.

APPROVED

By Date 4/2/10

STATE OF ARIZONA DIL & GAS CONSERVATION COMMISSION

\*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

WORKOVER PROCEDURE

PROSPECT: Black Rock

LL: Monsanto-Navajo "A" 1

LOCATION: Section: 21 Township: 40 N Range: 29 E

COUNTY: Apache STATE: Arizona

TD: 6111 feet

PBTD: 5985 feet - Cement Plug

CIBP: Cast Iron Bridge Plug & 5995 feet

CASING: 9-5/8" @ 912 feet (Surface)
7" @ 6111 feet (Production)

TUBING: 2-3/8" 4.7# EUE PACKER: Lock Set @ 5198 feet

PACKER: Lock Set @ 5198 feet Model "D" @ 5522 feet

PERFORATIONS: Penn. Akah:

Penn. Akah: 5266 - 5270 Penn. Barker Creek: 5553, 5557, 5573-77

Penn. Pinkerton Trail: 5654 - 5660

LAST FLOW TEST: 1971 BOPD: 2 MMCFD: 7.4 PRODUCTION ZONE: Pennsylvanian

NOTE: See attached sheet for location of cement plugs and perforations.

- Clean up roads and location. Install anchors and construct small reserve pit.
- 2. Inspect surface casing, install and test wellhead welds.
- 3. Install gauges, safety valves and flowlines as per diagram.
- 4. Check for H<sub>2</sub>S.
- 5. Check casing back side for pressure.
- 6. Rig up workover rig unit and open well. Bleed off pressure.
- 7. Install BOF's with diverter system and test to 3,000 psi.
- 8. Pressure test 7" 23# & 26# casing to 1,000 psi.
- 9. Pick up on 2-3/8" 4.7% EUE tubing and attempt to unseat the packer at 5,198'.

NOTE: If unable to unseat tubing and packer then proceed with step 9A.

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9A. Run in hole with 2-3/8" tubing cutter and cut tubing off approximately 5' above packer.

- 9B. Circulate hole and top of packer with 2% KCL.
- 90. Full out of hole with tubing.
- 9D. Make up overshot and fishing jars and run in hole.
- 9E. Latch onto 2-3/8" tubing.
- 9F. Run in hole with 2-3/8" tubing cutter.
- 96. Cut tubing approximately 5' above Model "D" packer at 5522'.
- 9H. Work Lock Set packer free.
- 91. Circulate and condition hole with 2% KCL.
- 9J. Pull out of hole with tubing and packer.

NOTE: Continue with step 12.

10. Circulate hole with 2% KCL.

NOTE: Have Gel on location for possible loss circulation.

- 11. Pull out of hole with tubing and Lock Set Packer.
- 12. Run in hole with wash pipe and mill out top packer slips at 5,522'.
- 13. Run in hole and retrieve packer.
- 17. Pull out of hole and make up 6-1/4" bit and casing scrapper.
- 18. Run in hole to 5,900'. Circulate and condition.
- 19. Pull out of hole and rig up electric logging equipment.
- 20. Run the following logs:
  - 1. PAL from 5800' to 4800'
  - 2. NGT from 5800' to 4800'
  - 3. CET from 5800' to 4800'
  - 4. CBL from 5800' to 4800'

NOTE: Cement squeezes, re-perforating and opening additional pay will be done after all logs have been evaluated.

See EXHIBIT "A" For Acid Treatment:

BECHMATIC OF
MONBANTO-NAVAJO "A" 1
Bec. 21 T40N R27E
Apache County, Arizona

- 9-5/8" 32.30# € 912' Cmt. w/350 sacks Light cement to surface 2-3/8" 4.7# EUE Tubing Lock Set Packer @ 5198' ½ Penn. Akah perfs @ 5266' - 5270' Model "L" Sliding Sleeve @ 5454' Model "F" Nipple @ 5488' Model "D" Packer @ 5522' Penn. Barker Creek perfs @ 5553', 5557', 5573' - 5577' = Penn. Pinkerton Trail perfs @ 5654' - 5660' \\\\\ Cement Plug from 5975' - 5985' CIBP @ 5995' Miss. Dolomite perfs @ 6014' - 6020' TD @ \_ 7" 23 & 26# @ 6111' Cmt. with 375 sacks 6111'-Cmt. w/375 sacks Class "C" cement

(BEE ATTACHED SHEETS FOR DETAILS OF STIMULATION AND TESTS)

Information On Stimulation and Testing
Monmanto-Navajo A-1
1980 FNL & 1050 FEL
Sec. 21 T40N R29E
Apache County, Arizona

48.00 68°

MISS. DOLOMITE: (6014 to 6020 feet) Acidize with 500 gallons of 15% MCA. Maximum of 2200 psi, treated at 1-1/2 B/M at 600 psi. Well went on vacuum. Total load to recover is 42 bbls of water. Swabbed all load water plus 75 bbls of formation fluid in 6 hours. Swabbing rate of 20 bbl/hr. Fluid level was 2800' from surface. No oil or gas recovered. Set cast iron bridge plug at 5995' to seal off perforations. Top of cement plug at 5985'.

PENN. PINKERTON TRAIL: (5653 to 5660 feet) Swab 7 bbls of load water in 1/2 hour. Water started flowing. Flow to pit for clean up for 1-1/2 hours, then into separator equipment for 3 hour test. FTP 150 psi on 32/64" choke. Gas rate at the beginning of test was 374 MCFD. Shut-in well. Pressure build up after 1 minute was 400 psi, 5 minutes 500 psi, 10 minutes 650 psi, 15 minutes 850 psi, 20 minutes 940 psi, 25 minutes 1025 psi, 30 minutes 1120 psi and 35 minutes 1170 psi. Acidized perforations with 4000 gallons 15% HCL with 1 gallon inhibitor and 2 gallons surfactant per 1000 gallons of acid. Maximum 2700 psi. Treated at 4-1/2 B/M at 2500 psi. Total load water 122 bbls.. Initial shut-in pressure, well on vacuum. Swabbed 7 bbls load water in 1/2 hour. Well started flowing. Flow to pit for 2 hours of clean up, then into test equipment for 5 hour test. Flow rate was 2.54 MMCFD on a 20/64" choke. FTP 1100 psi, 3.40 MMCFD, 25/64" choke, FTP 975 psi. Shut-in well. 15 minute SITP 1300 psi. Recovered 45 bbls load water leaving 77 bbls to recover. Perforations temporarily plugged off. Sec etrievable bridge plug at 5615'.

PENN. BARKER CRK: (5553 to 5577 feet) Set RTTS packer at 5511'.

Swabbed dry recovering 20 bbls load water in 1
hour. Acidized with 2000 gallons 15% HCL. Break
down at 1800 psi at 2 B/M. Treated at 3-1/2 B/M
at 1700 to 2000 psi. Maximum 2000 psi. ISIP 1100
psi, 15 minute SIP 900 psi. Total load water of
72 bbls. Well back flowed 20 bbls and died.
Swabbed 52 bbls load water lowering fluid level
to 5200'. All load water recovered. Well flowing
gas at 25 MCFD. Shut-in for 1 hour. Fluid level
up 100'. Swabbed 1/10 bbl water with a trace of
oil. Shut-in well. 1 minute SIP 20 psi, 30 minute
SIF 50 psi, 1 hour SIP 80 psi, 8 hour SIP 475
psi. Fluid level 2000' from surface. Made 1 swab
run recovering 4 bbl acid water with a trace of

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cil. Well flowed 1/2 hour and died. Well flowing gas TSTM, estimated rate of 25 MCFD. Shut-in well. 1 minute SIP 20 psi, 30 minute SIP 55 psi, 90 minute SIP 90 psi. Acidize perforations with 10000 gal 28% HCL. Maximum 3200 psi, AIR 6.5 B/M at 2900 psi. ISIP well on vacuum. 320 bbl of load water to recover. Swabbed 80 bbis load water in 2 hours. Well started flowing. Clean up to pit for 2 hours recovering 20 bbl load water then turned into test equipment for 4 hour test. Flow rate 3.44 MMCFD thru a 30/64" choke, FTP 875 psi. Well still not cleaned up. 220 bbl load water yet to recover. Shut-in well. ISIP 1000 psi, 30 minute SIP 1150 psi, 8 hour SITP 1325 psi. Open well and flow for 10 hour period. Well producing at 4.2 MMCFD, FTP 800 psi thru a 32/64" choke. Recover 115 bbl load water. Shut-in well. 15 minute SIP 1300 psi. Killed well.Release RTTS & lower to top of sand bridge at 5606'. Unable to reverse sand off bridge plug. Went in hole open ended and reversed off sand, moved bridge plug up hole to 5300'.

PENN. AKAH: (5266 to 5270 feet) Set RTTS at 5225'. Swabbed 19 bbl load water in 2 hours lowering fluid level to 4900' from surface. No fluid coming in hole. 915 bbl load water to recover. Acidized with perforations with 500 gal; MCA. Maximum 2150 psi. Treated at 3 B/M at 200 psi. Recovered 45 bbl load water. ISIP 1550 psi, 10 minute SIP 1400 psi, bled down. Swabbed well down to 5000' recovering all load water in 3 hours. Fluid coming into hole at rate of 1 bbl of oil per hour. Swabbed 4 bbl of 41 gravity oil in 4 hours. Swabbing rate 1 bbl fluid/hr. Recovery approx. 70% oil. Flowed 45 bbl load water in 1 hour. Well died. Swabbed 4 bbl oil & 55 bbl load water in 6 hrs. Still have 43 bbl load water to recover. Treated perforations with A000 gal 15% HCL. Max 3200 psi. Air 4-1/2 B/M at 2800 psi. ISIP 1500 psi, 10 minute SIP 1200 psi. Flushed with 1000 gal treated water. Total load to recover 143 bbl. Swab testing. SITP 375 psi in 14 hours. Fluid level 5175' from surface. Recover 33 bbl load water. Fluid influx into well bore at 1/2 bbl per hr. (30% pil). Swab testing. SITP 350 psi in 14 hrs. Swabbed 4 bbl oil & 5 bbl load water in 9-1/2 hrs. Fluid level 5175' from surface. 28 bbl load water yet to recover. Chlorides 30300 PPM., PH 6.0.

> Fulled RTTS and bridge plug. Set Model "D" at 5522' with Model "F" (1.81" ID) setting nipple at 5488' and Model "L" sliding sleeve (1.87" ID) at 5454' and a Lock set packer at 5198'.

oil. Well flowed 1/2 hour and died. Well flowing gas TSTM, estimated rate of 25 MCFD. Shut-in well. 1 minute SIP 20 psi, 30 minute SIP 55 psi, 90 minute SIP 90 psi. Acidize perforations with 10000 gal 28% HCL. Maximum 3200 psi, AIR 6.5 B/M at 2900 psi. ISIP well on vacuum. 320 bbl of load water to recover. Swabbed BD bbls load water in 2 hours. Well started flowing. Clean up to pit for 2 hours recovering 20 bbl load water then turned into test equipment for 4 hour test. Flow rate 3.44 MMCFD thru a 30/64" choke, FTP B75 psi, Well still not cleaned up. 220 bbl load water yet to recover. Shut-in well. ISIP 1000 psi, 30 minute SIP 1150 psi, 8 hour SITP 1325 psi. Open well and flow for 10 hour period. Well producing at 4.2 MMCFD, FTP 800 psi thru a 32/64" choke. Recover 115 bbl load water. Shut-in well. 15 minute SIP 1300 psi. Killed well.Release RTTS & lower to top of sand bridge at 5606'. Unable to reverse sand off bridge plug. Went in hole open ended and reversed off sand, moved bridge plug up hole to 5300'.

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PENN. AKAH: (5266 to 5270 feet) Set RTTS at 5225'. Swabbed 19 bbl load water in 2 hours lowering fluid level to 4900' from surface. No fluid coming in hole. 915 bbl load water to recover. Acidized with perforations with 500 gal; MCA. Maximum 2150 psi. Treated at 3 B/M at 200 psi. Recovered 45 bbl load water. ISIP 1550 psi, 10 minute SIP 1400 psi, bled down. Swabbed well down to 5000' recovering all load water in 3 hours. Fluid coming into hole at rate of 1 bbl of oil per hour. Swabbed 4 bbl of 41 gravity oil in 4 hours. Swabbing rate 1 bbl fluid/hr. Recovery approx. 70% oil. Flowed 45 bbl load water in 1 hour. Well died. Swabbed 4 bbl oil & 55 bbl load water in 6 hrs. Still have 43 bbl load water to recover. Treated perforations with 4000 gal 15% HCL. Max 3200 psi. Air 4-1/2 B/M at 2800 psi. ISIP 1500 psi, 10 minute SIP 1200 psi. Flushed with 1000 gal treated water. Total load to recover 143 bbl. Swab testing. SITF 375 psi in 14 hours. Fluid level 5175' from surface. Recover 33 bbl load water. Fluid influx into well bore at 1/2 bbl per hr. (30% oil). Swab testing. SITP 350 psi in 14 hrs. Swabbed 4 bbl oil & 5 bbl load water in 9-1/2 hrs. Fluid level 5175' from surface. 28 bbl load water yet to recover. Chlorides 30300 FPM., pH 6.0.

> Pulled RTTS and bridge plug. Set Model "D" at 5522' with Model "F" (1.81" ID) setting nipple at 5488' and Model "L" sliding sleeve (1.87" ID) at 5454' and a Lock set packer at 5198'.

Swabbed 50 bbl load water from PENN. Barker Creek & Pinkerton Trail perforations. Recovered 250 bbl load water in 12-1/2 hrs. FTP 200 psi on a 1" choke. Shut-in well. SITP 600 psi in 30 minutes. SITP 1275 psi in 11 hrs. Flowed 326 bbl load water & 3 bbl condensate in 21 hrs. Volume at end of test period 3.76 MMCFD on 1/2" choke, FTP 715 psi. Fluid rate 3.7 bbl load water & 0.6 bbl condensate/hr. Still lack 234 bbl load water to recover. Flowed 12 bbl distillate & 60 bbl load water in 24 hrs. Gas volume at end of test was 4.14 MMCFD on 1/2" choke. FTP 750 psi. 174 bbl load water to recover.

PENN. BARKER CRK: (5653 to 5660 ft & 5553 to 5577 ft) 10 hr shutin 1280 SITP.Ran BHP bomb.

Flowed well at 4 rates: 1st rate: 12/64" choke FTP 1247 psi, 1.01 MMCFD, no fluid. 2nd rate: 17/64" choke FTP 1190 psi, 1.85MMCFD, no fluid. 3rd rate: 21/64" choke FTP 1098 psi, 2.62 MMCFD, 1 BD, 1/2 BLW. 4th rate: 27/64" choke FTD 876 psi, 3.36 MMCFD, 1-1/4 BD, 2 BLW.

Flow rates completed 8-27-71. Pulled BHP bomb. CADF of Penn. Barker Creek is 7.4 MMCFD. Slope of 0.6531. Well shut-in.

DST Information & Results:

DST #1:

5060'-5107' Akah: No water cushion. 5/8" bottom choke. Opened for 15 min. preflow, strong blow of gas in 5 min.. Closed for 90 min. Opened tool for 90 min. flow period. Flowed gas at a rate of 318 MCFD on 5/8" choke w/25 psi flow pressure. Closed tool for 90 min. FSIP. Recovered one bbl gas cut drilling mud w/rainbow of oil on drill pipe. Pressure on 15 min. preflow 53# to 107#. ISIP 1418 (90 min.). IFP 80#, FFP 80# (90 min.), FSIP 615 (90 min.), EHT 115°F, MCP (in & out) 2462.

DST #2:

5250'-5375' Atoka: No water cushion. 3/4" bottom & 5/8" top choke. Tool opened for 15 min. preflow w/weak blow. Closed for 90 min. ISIP. re-opened for 90 min. flow period. Gas to surface in 25 min. w/good blow decreasing to weak blow. No surface pressure. Closed tool for 90 min. FSIP, recovered 300' of 41 gravity oil and 300' of heavy oil and gas cut drilling mud. 15 min. preflow 80 psi -- 107 psi; 90 min. ISIP 2301 psi (incorrect); IF 134 psi; FF 214 psi; 90 min. FSIP 1006 psi, MCP (in & out) 2516 psi, BHT 120°F.

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DET 43:

5195'-5221' Barker Creek: No water cushion. 3/4" bottom & 5/8" top choke. Tool opened for 15 min. preflow with weak blow. Shut-in for 90 min. ISIF, then opened well for 60 min. flow period. Weak blow throughout test. No surface pressure. Shut-in for 60 min. FSIP. Recovered 30' gas cut mud w/slight rainbow of oil. Preflow 53 psi, 90 min. ISIF 373 psi, IF 53 psi, FF 53 psi, 60 min. FSIP 320 psi, MCF in & out 2489 psi, BHT 108°F.

DST #4:

Pinkerton Trail: No water cushion. 3/4" top & bottom chokes. Opened tool for 15 min. preflow, flowed with strong blow. Gas to surface in 4 min... Closed tool for 90 min. ISIP. Re-opened with strong blow increasing to 550 psi max. surface pressure on 3/4" choke, decreasing to 410 psi at conclusion of test. Gas rate 5.945 MMCFD. Closed tool for 90 min. FSIP. Recovered 300' of heavy gas cut mud w/trace of condensate. 15 min. preflow 535 psi -- 562 psi; 90 min. ISIP 1525 psi, IF 481 psi, FF 669 psi, 90 min. FSIP 1499 psi, BHT 120°F. MCP (in & out) 2651 psi.

DST #5:

5948'-6000' Upper Miss.: No water cushion. 3/4" top & bottom chokes. Opened tool for 15 min. preflow. No blow. Closed tool for 60 min. ISIP. Re-opened for 60 min. flow period. No blow. Closed tool for 60 min. FSIP. Recovered 5' drilling mud. 15 min. preflow 53 psi -- 133 psi, 60 min. ISIP 1379 psi, IF 53 psi, FF 80 psi, 60 min. FSIP 347 psi, MCP in 2992 psi, MCP out 2886 psi, BHT 132°F.

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ARIZOUA OIL AND GAS CONSERVATION COMMISSION
MULTIPOINT A. ONE POINT BACK PRESSURE 1. T FOR GAS WELL

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WELL RECORD COUNTY/STATE: APACHE JUNTY, ARIZONA OPERATOR: CITIES BERVICE OIL CONS. UNIT MAME: TRIBE NAME: NAVAJO LEADE DEBICHATION O: 14-28-8693-1522 BURVEY: 1988 FAL & 1858 FEL FIELD: BLACK ROCK LEASE MAME: MONSANTO-NAVAJO "A" WELL #1 1 PATD: 5985" 19: 4111' EFENATION: 7282 (KB) RANBEL 29 E TOWNSHIP: 48 M BECTION: 21 CASING DATA WELL SCHEMATIC BACKS CHT TOP OF CHT SIZE MEIGHT TYPE BOTTOM SURFACE 912 25**8** 9-5/B 32.39 3550 6111 375 23 1 26 5-1/2 LOSSING DATA 6 415. 6 415. COMPANY INTERVAL BATE TYPE 2-3/8" 4.74 EUE The 7/29/71 7/30/71 7/30/71 6899-911 6184-911 6185-918 SCHLUMBERGER SCHLUMBERGER BHC/GR [13] Lock Set Packer @ 5198' PROXIMITY Atah perfu Sleeve @ 5454. SCHLUMBERGER NEUTRON PORDS 7/38/71 6184-918 **SCHLUMBERGER** DIL Model "F" Hipple @ 5488' LOS TOPS FORMATION [X] [X] Model "D" Packer @ 5522' AKAH @ 5322' DeCHELLY # 2738 Barker Creek peris BARKER CREEK @ 547B" ORGAN ROCK € 3182' MOLAS @ 5779" EUTLER € 3691' Pinkerton Trail perfs MISS. LINESTONE & 5878" HERMOSA @ 4442' PBTD: 5985' mmm CIBP @ 5995. MISS. DOLDHITE @ 5948' 15MAY € 5836" └ 7° 23 % 269 @ 6111' DESERT CREEK @ 5178' PRODUCTIVE RESERVOIR: PENNSYLVANIAN PERFORATIONS COMPLETION RECORD DATE DEN & SIZE FORMATION DEPTHS TUBING RECORD BISE WEIGHT TYFE LENGTH SEAT MIPPLES 5553-57, 73, 74, 75-77 | 1 Shot/ft 1/2° Jet 1971 BARKER CREEK "L" S.S.-5454" 2-3/8 1971 1 Shot/ft 1/2° Jet 5654~5668 PINKERTON TRAIL "F" Nipple & 5488" 1 Shot/ft 1/2" Jet 1971 **AKAH** 5266-5270 PACKER BATA SQUEEZE & REPAIRS SETTING DEPTHS TYPE MORK DONE DEPTH DATE 5198 LOCK SET PACKER 5522 MODEL "D" PACKER 5995 CIBP STINULATION REHARKS AFTER DEFORE DATE INTERVAL SIZE & TYPE AIR STATUS: SHUT-IN TSTH 2888 gal 15% HCL 3-1/2 BARKER CREEK 1971 4.288 088ps BARKER EREEK 1000 gal 28% MCL 6-1/2 TSTH 1971 TEST DATA 3.489 975ps PINKERTON TRAIL 4888 gal 157 MCL 4-1/2 1971 1P: 4 PT: CADE - 7.4 MMCF P/D 12 BCPD 16 BD 228 F • 4888 gal 35% HCL 4-1/2 1971 ALAH. BST DATA (I) PVT ( ) CORE ( ) BHF ( )

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SHOW THE

EXHIBIT "A"

## ACID TREATMENT (All Zones of Interest)

After the well has been worked over and all logging, squeeze jobs and perforating completed, the following acid treatment will be performed over each individual zone of interest.

NOTE: All perforating will be done prior to stimulation.

GUN TYPE: 4" Decentralized Hollow Carrier w/Select Fire CHARGE SIZE: 41A Hyperjet III CHARGE DEN: 1 Jet Shot per foot

1. Run Guiberson RBP-VI (or similar packer) with two 48 hour, 8,000 psi, pressure bombs contained in a perforated sub below the packer. Bembs should be protected from damage with springs both above and below.

NOTE: This packer will be run in conjunction with a treating packer. See step #2.

- 2. Pick up on tubing to set Suiberson HDCH-V (or similar) treating packer. Shut-in annulus loaded with 2% KCL.
- 3. Rig up and run gamma ray/temperature logs.
- 4. Fump 2% KCL down tubing until formation is loaded.
- 5. Perform 24,000 gallor acid fracture at 20 BPM with a maximum surface pressure of 4,000 psi as follows:
  - a. Fump 4,000 gallons WF40 plus 1 ppg 100 mesh sand.
  - b. Pump 6,000 gallons 28% HCL tagged with 1#/1,000g radioactive sand.
  - c. Pump 4,000 gallons WF40 plus 1 ppg 100 mesh sand.
  - d. Drop 800# salt diverting plug.
  - e. Repeat steps a thru d twice.
  - f. Fump 4,000 gallons WF40 plus 1 ppg 100 mesh sand.
  - g. Pump 6,000 gallons 28% HCL tagged with 14/1,000g radioactive send.
  - h. Pump 4,000 gallons WF40 plus 1 ppg 100 mesh sand.
  - 1. Flush to bottom with 2% KCL.

NDTE: Treating fluids should contain the following additives:

- 28% HCL to contain 1,000 gallons

3 gallons A200 inhibitor 2 gallons W53 nonemulsifier 1 gallon J321 friction reducer - WF40 to contain per 1,000 gallons

40 pounds J347 gel 2 gallons F75 surfactant 2 pounds J297 breaker 167 pounds M117 kcl (2%)

Blocking agent to contain per 100 gallons WF40: 100# J66 rock salt; total block = 2,400#

- 6. Obtain ISIP, 5 minute SIP, and 10 minute SIP.
- 7. Run gamma ray/temperature logs.
- 8. Allow well to clean up & then flow test for two hours.
- 9. Release packers and pull out of hole and/or reset over the next zone and repeat Steps 2 thru 8.
- 10. Run production packer and tubing.
- 11. Allow well to flow until it cleans up, then shut-in. Run two 72 hour clocks and BHP bombs and flow test as follows:
  - a. Flow well a minimum of 12 hours and allow to stabilize at a maximum rate for Four Point Test.
  - b. Change choke sizes to smaller size 3 times to obtain the other three points on the Four Point Test. Run all test for the EXACT same amount of time (min. of 1 hour each).
  - c. Shut-in well for 24 hour build up test.
  - d. Pull out of hole with bombs, and send results to Division Office.
- 12. Fut well on production and report test results to Division Office for thirty (30) days.

NOTE: Data to be reported will be as follows:

Tubing Pressure Casing Pressure Choke Sire Gas Rates Oil Rates Water Rates

<i>\chi_{\chi}</i>	(O TRANSPO	RT OIL OR GAS	FROM LEL	Č
rederal, State or Indian Lease Number. or lessor's name if fee lease NOG 0/02-1110	Field Black Rock			Reservoir Paradox
Survey or Sec-Twp-Rge	County			State
21-40N-29E	Apache			Arizona
Operator				
Chuska Energy Company				
ADDRE		PONDENCE CONCER	NING THIS F	
Street	City Farmington			New Mexico 87401
315 N. Behrend		nington	<u>_</u> <u>_</u>	11011
Above named operator authorizes (name of	ransporter)	Paco Natural G	as)	•
Western Gas, Ltd. (as age	City	raso Material o	1	State
Transporter's street address	1 -	Kirtland		New Mexico 87417
P. O. Box 70	1 Kileia	11.0		
Field address				
	Oil, cont	lenzate, gas well gas, ca	asinghead gas	
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New Lease  The undersigned certifies that the rules and	ase, except as not uced from the ab	ed above, and that the bove described propert		ervation Commission have been compiled with orter is authorized to transport the above specific is authorization will be valid until further notice.
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STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION Operator's Certificate of Compliance & Authorization to Transport Oil or Gas from Lease File Two Copies

Form No. 8

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

Date approved:\_

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FOR U.S. GOVERNMENT USE ONLY Form 9-598 b **UNITED STATES** Sec. 21 DEPARTMENT OF THE INTERIOR T.\_\_40\_N **GEOLOGICAL SURVEY CONSERVATION DIVISION** INDIVIDUAL WELL RECORD G&SR Mer, Ref. No. INDIAN LAND: Date Oct. 15, 1971 Reservation Navajo Tribal Arizona Lessee Wildcat Owned by Navojo th 1-24-77. Operator Cities Service Uil Co. **Farmington** 1 Monsanto-Navajo "A" Subdivision Location 1980 feet from north and 1050 feet from east lines of section Drilling approved ... June 22 , 1971 Well elevation \_ Drilling commenced \_ June 30...., 19.71. Total depth \_\_ Drilling ceased\_ July 30 , 19 71 Initial production \_\_ 7400 HGFPD Completed for production Aug. 29 , 19.71 Gravity A. P. I. Abandonment approved \_ \_\_\_ Initial R. P. Geologic Formations Productive Horizons Surface Name Depths Contents Pennsylvanian 5553-5660 Miss. Dolomite **WELL STATUS** May June JULY \_\_1971 Drg. .PGW. 1976 REMARKS Geol. Tops: De Chelly 2738 E.L. Barker Creek 5478 E.L. Organ Rock 3102 " Molas Cutleri 3691 " Miss. Lime 58701 Hermoss 44421 " " Dolomite 59401 Resert Creek 5178' "

W. P. GOVERNMENT PRINTING OFFICE 16-43447-2

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## United States Department of the Interior

#### **GEOLOGICAL SURVEY**

P. O. Box 959 Farmington, New Mexico 87401

June 22, 1976

#### Memorandum

To:

Oil and Gas Supervisor, Southern

Rocky Mountain Area

From:

District Engineer, Farmington, New Mexico

Subject: Termination, Nav. Trib. leases 14-20-0603-1522 and

The subject leases have expired by their own terms as of October 1973. Each lease has a well shut-in pending decision by the Navajo Tribe as to their ultimate disposition; that is, to either require plugging or sell intact on a lease sale.

It is the opinion of this office that the wells, by virtue of remoteness from a pipeline and vacant acreage will not be produced for a number of years if at all. Therefore, in the interest of safety and fairness to the liabilities of the companies involved recommendations should be made to the Navajo Tribe that these wells be plugged and abandoned, and operator allowed to recover their equipment.

It should be pointed out that such plugging can be accomplished without damage to the producing formation as well as eliminate the possibility of any damage or vandalism resulting in injuries or loss of gas.

P. T. McGrath

24 January 1975

RECEIVED

JAN 28 1975

U. S. GEOLOGICAL SURVEY FARMINGTON, N. M.

Mr. Ted Boston Cities Service Oil Company Cities Service Bldg. 100 West 7th Street Box 300 Tulsa, Oklahoma

Dear Mr. Boston:

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Recently Mr. Thomas Lynch, Realty Officer, Real Property Management of the Bureau of Indian Affairs wrote your offices stating that Leases 14-20-063-1522, 14-20-063-1523, and 14-20-063-1553 which were jointly held by Monsanto Company and Cities Service Oil Company had expired on their own terms. He also stated that this lease concellation did not relieve the company of certain obligations stated in the leases such as the plugging of the shut in wells.

At the present time, the Navajo Triba is considering various courses of action in regard to the "shut-in" wells located upon these leases. The Office of Minerals Development, Navajo Triba is requesting that these shut-in wells be left unplugged until such time that a decision has been made in regard to possible future development. It is also requested that all casing, equipment and structures of any well capable of producing be left infact as provided in the leases.

Thank you for your cooperation in this matter.

Sincerely,

Robert F. Schryver, Director OFFICE OF MINERALS DEVELOPMENT

RFS/1w

cc: Peter MacDonald, Chairman, Navajo Tribal Council Paul Eckstein, Legal Counsel, Brown, Vlassis & Bain Thomas Lynch, Realty Officer, Bureau of Indian Affairs Phil McGrath, U.S.G.S. Farmington, New Mexico

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### THE NAVAJO NATION

WINDOW ROCK, NAVAJO NATION (ARIZONA) 86515

MAR 23 1977

PETER MACDONALD

WILSON C. SKEET

OCT 14 1981

U. S. GEOLOGICAL SURVEY, FARMINGTON, N. M.

John Bokan, Acting Assistant) Area Director U.S. Department of the Interior Bureau of Indian Affairs

Navajo Area Office Window Rock, Arizona 86515

Dear Mr. Bokan:

In response to your letter of 11 February 1977, Cities Service Oil Company is hereby released from its responsibility to plug and abandon the following three gas wells:

- (1) Cities Service Oil Company, Monsanto-Navajo "A" 和 well located 1980' FNL and 1050' FEL, Section 21, 40N-29E, Apache County, Arizona (BIA No. 14-20-0503-1522).
- (2) Cities Service Oil Company, Monsanto-Navajo "C" #1 well located 2350' FNL and 2290' FNL, Section 16, 40N-29E, Apache County, Arizona (BIA No. 14-20-0603-1553
- (3) American Fuels Corp., Navajo "AC" #1 well located 490' FNL and 500' FEL, Section 17, 40N-29E, Apache County, Arizona (BIA No. NOO-C-14-20-3814.

It is understood that all three wells are implugged and that all equipment in connection therewith is intact.

. Sincerely,

Peter MacDonald, Chairman The Navajo Tribe

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MAR 28 1977

Area Branch of Real Property Mamil. 0



IN REPLY REFER TO:

ARPM/322

# United States Department of the Interjor

BUREAU OF INDIAN AFFAIRS Navajo Area Office

Window Rock, Arizona 86515

MAR 25 1977

Rec'd 10-14-81

Cities Service Oil Co. P. O. Box 1919 Midland, Texas 79701

### Gentlemen:

Pursuant to your request dated January 24, 1977, and the Navajo Tribe's letter dated January 24, 1975, you are relieved of any further responsibility and liability to plug and abandon the "A" #1 Well under expired lease No. 14-20-0603-1522, the "C" #1 well under expired lease No. 14-20-0603-1553, and the "AC" #1 well under expired lease No. 14-20-0603-3814.

The release of responsibility is effective January 24, 1977. This will allow the Navajo Tribe to assume responsibility for the wells as they requested.

A copy of this letter is being sent to the U. S. Geological Survey for their information and records.

Sincerely yours,

ACTING' ASSISTANT

Area Director

S COLUTION OF

CITIES SERVICE OIL COMPANY



Box 1919 Midland, Texas 79701 Telephone (915) 684-7131

January 24, 1977

MINERALS

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United States Department of Interior Bureau of Indian Affairs Navajo Area Office Window Rock, Arizona 86515 RECEIVED 0CT 14 1981

> U. S. GEOLOGICAL SURVEY. FARMINGTON, N. M.

ATTENTION: Mr. Thomas Lynch, Realty Specialist Real Property Management

- Re: (1) Cities Service Oil Company, Monsanto-Navajo "A" #1 well located 1980' FNL and 1050' FEL Section 21 40N-29E, Apache County, Arizona. (Your No. 14-20-0603-1522 and our 07X6-0200109)
  - (2) Cities Service Oil Company, Monsanto-Navajo "C" #1 well located 2350' FNL and 2290' FWL Section 16 40N-29E, Apache County, Arizona. (Your No. 14-20-0603-1553 and our 07X6-0200104)
  - (3) American Fuels Corp., Navajo "AC" #1 well located 490' FNL and 500' FEL Section 17 40N-29E, Apache County, Arizona. (Your No. N00-C-14-20-3814 and our 07X6-0200110)

#### Gentlemen:

Cities Service Oil Company drilled its Navajo "A" and "C" No. 1 wells, more fully set out in (1) and (2) above. These two wells were completed as wells capable of producing gas; however, our leases expired before we were able to obtain a pipe-line connection. Under a farmout contract from Cities Service Oil Company and Monsanto Company, American Fuels Corp. drilled their Navajo "AC" No. 1 well, which apparently was capable of producing, according to their production test on October 4, 1973. The American Fuels Navajo "AC" No. 1 well is located on an existing and valid lease owned jointly between Cities Service Oil Company and Monsanto Company.

By letter dated January 24, 1975, Mr. Robert F. Schryver, Director, Office of Minerals Development, advised they were considering several courses of action relative to the "A" & "C" No. 1 wells. He further requested us to leave these wells unplugged and leave all equipment in connection therewith intact until a decision was reached. We have abided by this request to the present time. Inasmuch as a considerable amount of time has elapsed since

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JAN 2 6 1977

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ection 16 - 40N-29E,
No. 14-20-0603-1553 and

" #1 well
ction 17 - 40N-29E,
o. NOO-C-14-20-3814 and

7-7-47-E-18-18

this request, two of the leases have expired on which two of the wells were located and in view of anticipated benefits of these three wells to the Navajo people, we request one of the following:

- 1. Notification from the appropriate authority for the Navajo Tribe that they will take over the "A", "C" and "AC" No. 1 wells and furnish Cities Service Oil Company and Monsanto Company with a letter or appropriate release of all responsibility and liability for these wells.
- 2. Authorizations from the appropriate authority for the Navajos to properly plug these wells.

We respectfully request an early decision and consummation of this matter.

Very truly yours

CITIES SERVICE OIL COMPANY

A. E. Taylor

AET:1h

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CITIES SERVICE OIL COMPANY



Box 1919 Midland, Texas 79701 Telephone (915) 684-7131

February 23, 1977

RECEIVED

OCT 1 4 1981

U. S. GEOLOGICAL SURVEY. FARMINGTON, N. M.

United States Department of Interior Bureau of Indian Affairs Navajo Area Office Window Rock, Arizona 86515

ATTENTION: Mr. Thomas Lynch, Realty Specialist Real Property Management

- Re: (1) Cities Service Oil Company, Monsanto-Navajo "A" #1 well located 1980' FNL and 1050' FEL Section 21 40N-29E, Apache County, Arizona. (Your No. 14-20-0603-1522 and our 07X6-0200109)
  - (2) Cities Service Oil Company, Monsanto-Navajo "C" #1 well located 2350' FNL and 2290' FWL Section 16 40N-29E, Apache County, Arizona. (Your No. 14-20-0603-1553 and our 07X6-0200104)
  - (3) American Fuels Corp., Navajo "AC" #1 well located 490' FNL and 500' FEL Section 17 40N-29E, Apache County, Arizona. (Your No. N00-C-14-20-3814 and our 07X6-0200110)

Gentlemen:

As previously discussed and more fully set out in my letter of January 24, 1977, there has been a considerable delay in receiving a decision as to the disposition of captioned wells. I shall appreciate your furnishing me with a decision as to one of the alternatives set out in my letter of January 24, 1977.

Your cooperation in this matter will be greatly appreciated.

Very truly yours,

CITIES SERVICE OIL COMPANY

A. E. Taylor

AET:1h

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FEB 28 1977

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4 51 - 6		Mg.	(U	Lident	ina	Navajo Trit	oel Contract
Form 9-330 (Rev. 5-65)	KAN.	u. HTED ST	·	SUBMIT IN		Form Budge	approved. t Bureau No. 42-R355.5.
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85. LIST OF ATTACH	NENTS .			<b>(</b>			
88. I hereby certify	that the foregoing s	nd attached info	mation is com	plete and correct	as determined	sor	9-7-/1
sioned	AL O. ROBERISON		TITLE _			DATE	

\*(See Instructions and Spaces for Additional Data on Reverse Side)

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General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both by paraustic to applicable Federal and or regional procedures and practices, either are shown below or will be issued by or many be obtained from, the local Federal and/or, State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not fide prior to the time this summary record is submitted, coles of all currently available logs (drillers, geologists, sample and or summary records as submitted, coles of all currently available logs (drillers, geologists, sample and or summary records as submitted, coles of all currently available logs (drillers, geologists, sample and regulations. All attochments should be intended by a populate Federal and/or State laws and regulations.

If there are no applicable state requirements, locations on Federal office for separate spaces, on this form and in any attachments or Federal office for specific instructions.

If there are no applicable for separate production from more than one interval zone (multiple completion); so state in item 22 and 24. If this well is completed for separate produced shown for depth, measurements sirven in the state of the separate produced, showing the additional data peritonet to such interval.

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(continued - see attachment)

GOVERNMENT PRINTING OFFICE

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June 26, 1972

Re: Monsanto-Navajo A-1 Section 21- T40N-R29E Apache County

### FORMATION TOPS FROM MR. CLIFF ROBERTSON

Permian Dechelly	2738
Organ Rock	3102
Cutler	3691
Penn. Hermosa	4442
Ismay	5036
Desert Creek	5178
Akah	5322
Barker Creek	5478
Molas	5779
Miss - Lime	5870
Miss Dolo	5940
T.D.	6111

170. 559

	•			Mavajo Tribal Contract
Form 9-331 (May 1963)	UN EB STAT DEPARTMENT OF THE GEOLOGICAL SI	E INTERIOR (Other list		Form approved. Budget Bureau No. 42-R1424. LEASE DESIGNATION AND SERIAL NO.
SUND (Do not use this fo	RY NOTICES AND RE	PORTS ON WELLS		6. IF INDIAN, ALLOTTEE OR TRIBE NAME Havojo 03-2350-03
OIL GAS WELL	OTHER			7. UNIT AGREEMENT NAME
2. NAME OF OPERATOR CITIES SERVIC	E OIL COMPANY			Konsanto-Havajo A
P. O. SON 64.	Hobbs, Hew Hexloo do	240		
4. LOCATION OF WELL (Re See also space 17 below	port location clearly and in accorda	ance with any State requirement		10. FIELD AND POOL, OR WILDCAT WILGER 11. SEC., T., R., M., OR BLE. AND
Arizona Arizona	IODG LEF OF DOOR TA		•	21-T49N-R29E
14. PERMIT NO.		how whether DF, RT, GR, etc.)		12. COUNTY OR PARISH 13. STATE
559	6383 GR		j	Apache AFIZON
TO 6111, P81 with 500 gal Total load i in 6 hours. at 59935 to from 5995 to from 5995 to from 5995 to from 5995 to from 5995 to from 5995 to from 5995 to from 5995 to from 5995 to from 5995 to from 5995 to from 5995 to from 5995 to from 5995 to gals, surface gals, surface gals, surface for 5 hour 3.40 MCFD, malfunction lialliburton sand on top okay. Pull 5553, 5557, 5511 to te Acidized wi 1700-2000	to 6083 Hississippien lons 15% HCA. Max. to recover 42 bbls wa Ho oil. No gas. I plug off Miss. Dolo to 5985'. Perf 8 0 5658, 5659 and 5660. In Lime perfs with 40 tant per 1000 gals a 122 bbls water. 1517 wing. Cleaned up to test. Flowed at rete 25/64" choke, FTP 97 ad. 15 sin SITP 1300 retrievable bridge; of bridge plug from ad out of hale. Per 5573, 5574, 5575, 58 st Penn Dolomite zon th 2000 gals 15% HCL	, 7" at 6111. Actor 2200 psi, treated a ter. Swabbed all I Ren Baker cast iron mite perfs. Dumper .50" holes in Penni Ran RTTS on 2 3/6 00 gallons 15% HCL icid. Hax. 2700 ps vacuum. Swabbed pit for 2 hours th a of: 2.54 MHCFD, 75 psi. Shut in at plug on 2 3/8" aue 5615' to 5606'. 1 forated 7 = 0.50" i 576, 5577. Ren RTT e. Swabbed dry res . Break down 1600 1519 1100 psi. 15 s	dized Miss.  at 1½ 8/M at load plus 75 a bridge plu d 2 sacks of sylvanian Li d" eue tubin with one ge 1. Treeted 7 bbis load wen turned ti 20/64" choke 11 P.M. 8-1 lTTS and pull tubing and tubing and fested bridge roles in Pen rovering 20 psi at 2 8/m sin SIP 900 ed 52 bbis	water in hours well income that equipment in the party water in hours well income that a surface equipment is at at 3515 placed a plug to 700 part. Held nay wanter bolded to be to the bols land water in 1 hour. In the party water is at 34 8/4 at party water is at 35 8/4 at party water in 1 hour.
SIGNED	A D ROSESSON	TITLE		794 E. J. B., 382-
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APPROVED BY _ CONDITIONS OF	APPROVAL, IF ANY:	TITLE		RECEEVED 1
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O & G CONS. COMM.

\*See Instructions on Reverse Side

n 9-330	†			COUNTY I	N DUPLICATE	For	rm approved.
·. 5–63)		TED STA			(See other	' in- i	dget Bureau No. 42-R355.5.
Ι	DEPARTME GEOL	NT OF TH OGICAL S	HE INTE URVEY	RIOR	structions reverse si	l	GNATION AND SERIAL NO.
WELL COM	PLETION OR	RECOMPLE	TION RE	PORT AN	ND LOG*	6. IF INDIAN, Navajo	#03-2390-01
TYPE OF WELL:	WELL OIL	GAS X		her		7. UNIT AGREE	EMENT NAME
	ETION: ORK DEEP- DEEP- EN		DIFF. Ot	her		S. FARM OR L	EASE NAME
WAVE OF OPERATOR	ICE OIL COMPA	NY.				9. WELL NO.	1
P.O. BOX 69	, Hobbs, NaM	. 88240			·	10. FIELD AND	D POOL, OB WILDCAT
LOCATION OF WELL	(Report location clean FNL & 1050)	FEL Sec.	21-T40N-	state requirem <b>R29E</b>	ents)*	11. SEC., T., E	E., M., OR BLOCK AND SURVEY
•		Unknown		• •		Sec. 21	-T40N-R29E
At top prod. intere	unknown	· · · · · · · · · · · · · · · · · · ·		•			•
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	16. DATE T.D. REACHE	D 17. DATE COM 8-29-7	PL. (Ready to	prod.) 18, E	BETATIONS (DF,	REB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
6-30-71	TVD 21. PLUG, BAC 5985	K J.D., MD & TVD	.22. IF MULTI	IFLE COMPL.,	23. INTERV	ALS ROTARY TOO	LS CABLE TOOLS
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5653-5660 6. TYPE ELECTRIC AN Perforating S. Sidewall N CABINO SIZE 9 5/8" 7" 7" 20.	Pennsylvanier Pennsylvanier Depth Control Eutron Poros WEIGHT, LB./FT. 32.3# 23 & 26#	DEFTH SET (M. 912	mpensater iduction:  RECORD (Report D) HOL  12	d Sonic L Laterlog, ort all strings to 2.8 Size 1/4 3/4	cet in well)  CEME Circu 375 s	NTING RECORD  Lated  LAX  TUBING RECORD	27. WAS WELL CORED OG. NO  AMOUNT PULLED NONE NONE
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5653-5660 6. TYPE ELECTRIC AN Perforating Sidewell N CABINO SIZE 9 5/8" 7" 7" 20.  SIZE 31. PERSORATION REC	Pennsylvanier Pannsylvanier Pannsylvanier Pannsylvanier Pannsylvanier Dorum Dorum Depth Contro Gutron Poros WEIGHT, LB./FT. 32.3# 23 & 26#  LINI TOP (MD) BOTO GRD (Interpol, size of Forations @ 5	DEFTE SET (M. 912  STREETE SET (M. 912  GILLETTOM (MD) SACONS (MD)	mpensater iduction: RECORD (Repo HOL 12 - 8	d Sonic I Laterlog, ort all strings of the strings	CEME Circu 3/5 s  30. SIZE 2 3/811  ACID, SHOT. ERVAL (MD)	TUBING RECORD  TUBING RECORD  DEFTH SET ( 5531  FRACTURE, GEME  AMOUNT, AND R	AMOUNT PULLED NORE NORE NORE  PACKER SET (MD)  S522  Ret.Pkr. © 5  RN SQUEEZE, ETC.  END OF MATERIAL USED
5653-5660  5. TYPE BLECTRIC AN Perforating S. Sidewell N  CABINO SIZE 9 5/8"  7"  7"  SIZE  31. PERSORATION REC 9 5674. 5575	Pennsylvanier Pannsylvanier Pannsylvanier Pannsylvanier Pannsylvanier Pannsylvanier Depth Contro Bepth Contro Bepth Contro Bepth Contro Bepth Contro Bepth Contro Berner B	DEFTH SET (M. 912  STREETH SET (M. 912  GIN (MD) SACOND SA	mpensater iduction:  RECORD (Report D) HOL 12 - 8	d Sonic L Laterlog, ort all strings to size 1/4 3/4 BCBEEN (MD	CEME Circu 3/5 s  30. SIZE 2 3/811  ACID, SHOT. ERVAL (MD)	TUBING RECORD  TUBING RECORD  DEPTH SET (  553 I  FRACTURE, GEME  AMOUNT AND R  2000 98 . I	OG. NO  AMOUNT PULLED NONE  RONE  CORD  PACKER SET (MD)  5522  Ret.Pkr. @ 5  NT SQUEEZE, ETC.  IND OF MATERIAL USED  5% HCL 6
5653-5660 6. TYPE BLECTAIC AN Perforating Sidewall N CABINO SIZE 9 5/8" 7" 7" 20. 81ZE 31. FBENORATION REC. 7 2" Per 5574, 5575 8 - 3" per	Pennsylvanier Pannsylvanier Pannsylvanier Pannsylvanier Pannsylvanier Dorum Dorum Depth Contro Gutron Poros WEIGHT, LB./FT. 32.3# 23 & 26#  LINI TOP (MD) BOTO GRD (Interpol, size of Forations @ 5	DEFTE SET (M. 912  GR RECORD  TOM (MD) SAC  S53, 5557.	mpensater iduction:  RECORD (Report D) Hol 12 - 8	d Sonic I Laterlog ort all strings of the strings o	CEME Circu 3/5 s  30. SIZE 2 3/811  ACID, SHOT. ERVAL (MD)	TUBING RECORD  TUBING RECORD  DEFTH SET ( 5531  FRACTURE, GEME  AMOUNT, AND R	OG. NO  AMOUNT PULLED NONE NONE NONE STATEMENT OF STATEMENT OF MATERIAL USED  28% HCL 6
5653-5660 6. TYPE BLECTAIC AN Perforating Sidewall N CABINO SIZE 9 5/8" 7" 7" 20. 81ZE 31. FBENORATION REC. 7 2" Per 5574, 5575 8 - 3" per	Pennsylvanier Pennsylvanier Pennsylvanier Pennsylvanier Dorum Logs municum Depth Control Bettron Porus WEIGHT, LB./FT. 32.3# 23 & 26#  LINI TOP (MD) BOT FOR TIONS © 5 , 5576, & 557 Forations © 5	DEFTE SET (M. 912  GR RECORD  TOM (MD) SAC  S53, 5557.	mpensater iduction:  RECORD (Report D) Hol 12 - 8	d Sonic I Laterlog ort all strings of the strings o	CEME Circu 3/5 s  30. SIZE 2 3/811  ACID, SHOT. ERVAL (MD)	TUBING RECORD  TUBING RECORD  DEPTH SET (	OG. NO  AMOUNT PULLED NONE NONE NONE STATEMENT OF STATEMENT OF MATERIAL USED  28% HCL 6
5653-5660 6. TIPE ELECTRIC AN Perforating S. Sidewall N. CABINO SIZE 9 5/8" 7" 7" 2D. BIZE 9 575 8 - 2" per 5657, 5658	Pennsylvanier Pennsylvanier Pennsylvanier Pennsylvanier Dorum Logs RUNI Depth Control Reutron Poros WEIGHT, LB./FT. 32.3# 23 & 26#  LINI TOP (Mb) BOT FOR	DEFTE SET (M. 912  GR RECORD  TOM (MD) SAC  654,5655.	mspensater iduction: RECORD (Repo B) 12 - 8	d Sonic I Laterlog, ort all strings of the strings	CEME Circu 3/5 s  30. SIZE 2 3/811  ACID, SHOT. ERVAL (MD)	TUBING RECORD  TUBING RECORD  TUBING RECORD  DEFTH SET ( 5531  FRACTURE, GEME  AMOUNT AND R  2000 gal.  10000 gal.	AMOUNT PULLED NORE NORE NORE NORE STATEMENT OF MATERIAL USED STATEMENT OF MATERIAL USED STATEMENT OF HCL.
5653-5660 6. TIPE ELECTRIC AN Perforating S. Sidewall N. CARINO SIZE 9 5/8" 7" 7" 20. 8IZE 31. PRE-OBJUTION REC. 2 PET 5574, 5575, 8 - 2" per 5657, 5658	Pennsylvanian Pannsylvanian Pannsylvanian Depth Contro Bettron Poros WEIGHT, LB./FT. 32.3# 23 & 26#  LINI TOP (MD) BOT FOR TIONS 6 5 5576, 2 557 6 5659 \$ 5660	DEFTE SET (M. 912  GR RECORD  TOM (MD) SAC  S53, 5557.  TOM (MD) SAC  S654,5655.	mspensater iduction: RECORD (Repo B) 12 - 8	d Sonic I Laterlog, ort all strings of the strings	CEME Circu 3/5 s  30. SIZE 2 3/811  ACID, SHOT. ERVAL (MD)	TUBING RECORD  TUBING RECORD  DEPTH SET (  5531  FRACTURE GEME  AMOUNT AND R  2000 gal.  10000 gal.	OG. NO  AMOUNT PULLED NONE NONE NONE STATEMENT OF STATEMENT OF MATERIAL USED  28% HCL 6
5653-5660 6. TIPE BLECTAIC AN Perforating S. Sidewall N. CABINO SIZE 9.5/8"  71 20. 81ZE 31. FESCONATION REC. 7 2" per 5574, 5575 8 - 2" per 5657, 5658  33.* DATE FIRST PRODUCT	Pennsylvanier Pennsylvanier Pennsylvanier Pennsylvanier Dorum Logs RUN Depth Control Reutron Poros WEIGHT, LB./FT. 32.3# 23 & 26#  LIMI TOP (ND) BOT TOP (ND) BOT 5576, & 557 forations @ 5 , 5659 & 5660	DEPTH SET (M. 912 6111 SACORD	mspensater iduction: RECORD (Repo B) 12 - 8	d Sonic I Laterlog, ort all strings of the strings	CEME Circu 3/5 s  30. SIZE 2 3/811  ACID, SHOT. ERVAL (MD)	TUBING RECORD  TUBING RECORD  TUBING RECORD  DEPTH SET (  DEPTH SET (  SET (  DEPTH	AMOUNT PULLED NONE NONE NONE NONE NONE NONE NONE NO
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5653-5660  6. THE BLECTRIC AN Perforating Strength No. 1178  9. SIGNATION REC. 2179  31. PERVORATION REC. 2179  5574, 5575  8 - 2179  5657, 5658  33.*  DATE FIRST PRODUCT  8-27-71  PLOW, TUBING PRESS.	Pennsylvanier Pennsylvanier Pennsylvanier Pennsylvanier Dothe Logs RUN Depth Control RUTTON POTOS WEIGHT, LB./FT. 32.3# 23 & 26#  LINI TOP (MB) BOTO TOP (MB) BOTO FORTIONS & 5576, & 557 forations @ 5 5576, & 557 forations @ 5 10 (4 point CASING PERSSURE	DEFTE SET (M. 912  STATEMENT OF THE SET (M. 912  STATEMENT OF THE SET (M. 912  STATEMENT OF THE SET (M. 912  STATEMENT OF THE SET (M. 912  STATEMENT OF THE SET (M. 912  CHOKE SIZE  TOM (MD) SAC  CHOKE	mpensater iduction:  RECORD (Repo  B) Hol  12  8  5573,  5656,  PRO  prop, gas lift, p  proph. For test period  OIL—BBL.  2	BCREEN (MD  82.  BCREEN (MD  82.  BEPTR INT  5553-55  DUCTION  DUCTION  DUMping—stre  OIL—BBL.  CAS—  7.4	CEME Circu 375  30. SIZE 2 3/81  ACID, SHOT. ERVAL (MD)  177  GAS—MC	TUBING RECORD  I lated  I ax  TUBING RECORD  DEPTH SET (  DEPTH SET (  SET   SET   SET    AMOUNT AND R  2000 gal.    10000 gal.    10000 gal.    WATER—BEL.    WATER—BEL.    WATER—BEL.    WATER—BEL.    TEST WIT	AMOUNT PULLED NONE NONE NONE NONE NONE NONE NONE NO

\*(See Instructions and Spaces for Additional Data on Reverse Side)

699 559

# INSTRUCTIONS

<u>(3</u>

General: This form is designed for submitting a complete and correct well completion, report and low all types of lands and leases to either a Federal agency or a State algency or a State algency or be or be prophered by Pederal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local from, the local from the land pressure tears and directions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis all types electric, etc.), formation and pressure tests and directional surveys, should be attached hereto, to the extent required by upplicable Federal and/or State laws and regulations. All attachments should be alised on this form, see item 33.

Here 4. If there are no applicable State requirements, locations on Federal of about the described in accordance with Federal and in any attachments. Consult local State which elevation is used as reference (where not otherwise shown) for depth measurements given in other space on this form and in any attachments, interval, and interval to be separated by produced, showing the additional data pertinent to such interval.

Here 22, and in the remember of the cementing tool. Items 23 and 24 above.)

Here 33: Submit a separate completion report on this form for each interval concenting and the location of the cementing tool. Here 33: Submit a separate prove.

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			TRUE VERT. DEPTH		. :								· ·	f .s					, 		
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	TH, INCLUDING			bottom		d in for	TO MCEN	Sure.	Recovered	rainbow	418	·三·	3 E	* :	bottom:	Shut in	ell for	hroughout	t In for	כחנ שמפ	L 53 DS 1.
	CORED INTERVALS; AND ALL DRILL STRIN TESTS, INCLUDING AND SHUTS N PRESSURES, AND LECOVERISE	CLE SEXEFFOR SCHOOL STREET		1. No water cushion, 5/8" bottom	d for 15 min prefid	g blow gas in 5 min. Closed in for	pened tool for 50 min flow	W/25 osi flow pres	tool for 90 min FSIP. Recover	cut drilling mud W/	reflow 53# to 107#. ISIP 1418	(FP 80#, FFP 80# (90 min),	615 (90 min.), BHT 115, MCP (in e		No water cushion, 3/4" bottom:	5/8" top choke. Tool opened for	90 min 151P, then opened well for	flow period. Weak blow throughout	surface pressure. Shut in for	Recovered 30 gas cut mud	The section of Art Description It's nation
	1		74.77	DST #1. NO .	choke. Opene			period. Plowed gas	. 9	9	min preflow 5	. E	٠,	*****	*	choke, 5/8" I		E) #	<u>.</u> د	60 mln F51P.	
	MARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTRINES THEREOF,	TOTAL TOTAL	ROTTON	5107		- - - - - - - - - - - - - - - - - - -		<b>,</b>	- <del>-</del> -			•			5221	1 2 -	. 3				
	POROUG ZONES :	TESTED, CUSTION	10F	5060	- <b>-</b>									1 1	5135						•
i terri	-	DEPTH INTORVAL	FORMATION	Akah Lime	A									<i>i</i> .	Barker Creek						

871-239

(continued - see attachment)

U.S. GOVERNMENT PRINTING OFFICE: 1963--- 0-083436

Cities Service Oil Company Honsanto-Navajo A #1

L.Pinkerton

Upper-Hiss

Trail

37.225.3

<u>Formation</u>	Top	Bottom	Summery
			90 min ISIP 373 psi, I.F. 53 psi, F.F. 53 psi, 60 min FSIP 320 psi, MCP in & out 2489 psi, BKT 1080 F.
Atoka	5250	5375	pst #3. No water cushion, 3/4" bottom choke, 5/8" top choke. Tool opened for 15 min preflow W/ weak blow. Closed for 90 min isip. Re-opened for 90 min flow period. Gas to surface in 25 min. W/good blow decreasing to weak blow. No surface pressure. Closed tool for 90 min fsip, Recovered 300° of 41 gravity oil and 300° of heavy oil and gas cut drilling mud. 15 min preflow 80 psi=107 psi; 90 min isip 2301 psi (incorrect); i.f. 134 psi; f.f. 214 psi; 90 min fsip 1086 psi, MCP (in a out) 2516 psi, BHT 120° F.

pst #4. No water cushion, 3/4" bottom choke, 3/4" top choke, opened tool for 15 min prefiew, flowed with strong blow. Gas to surface in 4 minutes. Closed tool for 90 min 151P. Re-opened with strong blow increasing to 550 psi max, surface pressure on 3/4" choke, decreasing to 410 psi at conclusion of test. Gas rate 5.945 HMCFD. Closed tool for 90 min FSIP. Recovered 300° of heavy gas cut mud W/trace of condensate. 15 min praficw 535 psi, =562 psi; 90 min 1SIP 1525 psi, 1.F. 481 psi, F.F. 669 psi, 30 min FSIP 1499 psi, BHT 120° F. MCP (in a out) 2651 psi.

pst #5. No water cushion, 3/4" bottom choke, 3/4" top choke. Opened tool for 15 min preflow. No blow. Closed tool for 60 min 151P. Re-opened for 60 min flow period. No blow. Closed tool for 60 minute FSIP. Recovered 5° of drilling mud. 15 min preflow 53 psi=133 psi, 60 min 151P 1379 psi, 1.F. 53 psi, F.F. 80 psi, 60 min FSIP 347 psi, MCP in 2992psi, MCP out 2886 psi, BHT 132° F.

 5670

6000

5545

5948

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Monsanto-Navajo A #1 -- Page 2

level to 5200'. Well flowing ges TSTM. Shut in for I hour. Swabbed 1/10 bbl water with trace of oil. Shut in overnite. I min SIP 20 psi, 30 min SIP 50 psi, I hour SIP 80 psi. Acidized Penn Dolo perfs with 10000 gals 28% HCL. Max 3200 psi, AIR 6.5 8/M at 2900 psi. ISIP vacuum. 320 BLW to recover. Swebbed 80 bbls load water In 2 hours. Well started flowing. Flowed at rate of: 3.44 MMCFD, 30/64" choke, FTP 875 psi. Well still not cleaned up. 220 BLW to recover. Shut in at 10:30 F.M. ISIP 1000 psl, 30 min SIP 1150 psl. Preparing to move retrievable bridge plug and set above existing perfs. 8 hour SITP 1325 psi. Flowed Penn Dolo zone 10 hours recovering 105 bols load water. At conclusion of flow period, well producing at rate of 4.2 MMCFD. FTP 800 psi, 32/64" choke. 115 BLW to recover. Shut in at 6 P.M. 8-13-71. 15 min SIP 1300 psi. Caught R.B.P. and moved up hole and reset at 5300 \*. Circulated hole and tested R.B.P to 1500 psi. Held okay. Pulled tubing and retrieving head. Perforated Penn Desert Creek zone with 5 -- 1" holes 5266, 5267, 5268, 5269, and 5270. Ran RTTS on 2 3/8" oue tubing and set at 5225. Swabbed 19 bbis load water in 2 hours lowering fluid level to 4900' from surface. No fluid coming in hole. Treated Penn Desert Creek perfs with 500 gallons MCA. Max 2150 psi, Rate 3 B/M at 2000 psi. Total load to recover 45 bbls water. ISIP 1550 psi, 10 min SIP 1400 psi. Bled well down. Swebbed well down to 5000' recovering all load water in 3 hours. Fluid coming into hole at rate of 1 bbl of oil per hour. Swabbed 4 bbls of 41 gravity oil in 4 hours. Shut in overnite. Swebbing at rate of 1 bbl fluid/hour (70% oil). Flowed 45 BLW in 1 hour. Well died. Swebbed 4 80 and 55 BLW in 6 hours. 43 BLW to recover. Treated Penn Desert Creek perfs with 4000 gal 15% HCL. Mex. 3200 psi. AIR 42 B/M @ 2800 psi. ISIP 1500, 10 min SIP 1200. Flushed W/1000 gal treated water. Total load to recover 143 bbls. Swab testing. SITP 350 psl in 14 hours. Swabbed 4 80 and 5 BLW in 92 hrs. F.L. 5175' from surface. 28 BLW to recover. Chlorides 30300 PPH, PH 6.0. SITP 275 psi in 14 hours. Swebbed 4 80 and 5 BLW in 92 hrs. F.L. 5175' from surface. 23 BLW to recover. Chlorides 24240 PPM, PH 6.5. Pulled RTTS packer and retrievable bridge plug. Set Hodel "D" Packer @ 5522 with Hodel 'F" (1.81 10) seating nipple @ 5488 and Hodel 'L" sliding sleeve (1.87 10) at 5454' and lock set packer @ 5198' (4000# on lock set). Run on 2 3/8" eue tubing. The sliding sleeve is closed. Swabbed 90 BLW from Penn Lime and Penn Dolomite perfs. Swabbed and flowed 250 BLW In 12th hrs. Flowing tubing pressure 200 psi on i' choke at end of test period. Shut in overnight. SITP 600 psi in 30 min. 560 BLW to recover. SITP 1275 In 11 hrs. Flowed 326 BLW 3 bbls condensate in 21 hours. Volume at end of test period 3.76 MMCF on to choke, FTP 715 psi. Fluid rate 8.7 BLW/hr and 0.6 bbis condensate/hr. 234 BLW to recover. Flowed 12 bbls distillate and 60 bbls load water In 24 hrs, gas volume at end of test period 4.14 NMCFD on 1" choke. FTP 750 psi, 174 BLW to recover. Penn Barker Creek perfs 5653-5660 (Lime) and 5553-5577 (Dolomite. Tested Penn Barker Creek zone as follows: 10 hour SITP 1280 psi. Ren BHP bomb. Flowed well at 4 rates: 1st rate 12/64" choke, FTP 1247 psi, 1.01 MMCFD, no fluid. 2nd rate, 17/64" choke, FTP 1190 psi, 1.85 MMCFD, no fluid. 3rd rate, 21/64" choke, FTP 1099 pal, 2.62 MMCFO, 1 BO, 1 BLW. 4th rate, 27/64" choke, FTP 876 pal, 3.36 MMCFD, 14 80, 2 BLW. Flow rates completed at 9:45 P.M. 8-27-71. Pulled 8HP bomb 8-29-71. CAOF of Penn Barker Creek zone is 7.4 MHCFD. Slope 0.6531. Well shut in.

# APTONA OIL AND GAS CONSERVATION COMMISSION MULTIPOINT AT ONE POINT BACK PRESSURE TEST OR GAS WELL

Type T	est					<del></del>					Test Dat	<del></del>	7,	Well Nar	ne		
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CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Brad Bennett of the Cities Service Oil (company).

and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowldge.

Date 9-1-71 Signature

10

STATE OF ARIZONA OIL & GAS
CONSERVATION COMMISSION
Multipoint and One Point Back Pressure
Tests for Gas Well

Form No. 18 (File two copies)

NAVAJO TRIBAL CONTRACT DEPARTMENT OF THE INTERIOR Verse side) Form approved.
Budget Bureau No. 42-R1424.
5. LEASE DESIGNATION AND BERIAL NO. 14-20-0603-1522 GEOLOGICAL SURVEY SUNDRY NOTICES AND REPORTS ON WELLS Navajo (Lse. #03-2390-01) (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.

Use "APPLICATION FOR PERMIT—" for such proposals.) MELT K METT CYR 8. FARM OR LEADE NAME 2. NAME OF OPERATOR MONSANTO-NAVAJO PAM CITIES SERVICE OIL COMPANY 9. WELL NO. 3. ADDRESS OF OPERATOR P.O. BOX 69, Hobbs, New Mexico 88240 LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)
At surface 10. FIELD AND POOL, OR WILDCAT WILDCAT 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 1980 FNL & 1050 FEL of Sec. 21-T40n-R29E, Apache County, SEC. 21-T40N-R29E Arizona. 12. COUNTY OR PARISH 13. STATE 15. ELEVATIONS (Show whether DF, RT, GR, etc.) 14. PERMIT NO. Arizona Apache : 6383 GR Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data 16. SUBSEQUENT REPORT OF: REPAIRING WELL WATER SHUT-OFF TEST WATER SHUT-OFF ALTERING CASING FRACTURE TREATMENT FRACTURE THEAT X SHOOTING OR ACIDIZING ABANDON (Other) Perforate, Acidize & Test SHOOT OR ACIDIZE REPAIR WELL (Norn: Report results of multiple completion on Well Completion or Recompletion Report and Log form.) (Other) 17. DESCRIBE PROPOSED OR COMPLETED OFERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\* TD 6111, PBTD 6083 Mississippian, 7" at 6111, Miss. Dolomite perfs 6014-6020. Acidized Miss. Dolo. perfs with 500 gallons 15% MCA. Max 2200 psi, treated at 12 B/M at 600 psi, [SIP vacuum. Total load to recover 42 bbls water. Swabbed all load plus 75 bbls of formation water in 6 hours. Swabbing at rate of 20 bbls/hour. Fluid level 2800 from surface. No oil. No gas. Released RTTS and pulled out of hole. Ran Baker cast iron bridge plug and set on wire line at 59951 to plug off Miss Dolomite perfs. Dumped 2 sacks of cement on top of plug from 5995 to 5985. Perforated 8 - 0.50" holes in Pennsylvanian Limestone 5653, 5654, 5655, 5656, 5657, 5658, 5659 and 5660. Ran RTTS on 2 3/8" EUE tubing and set at 5640 . Swabbed 7 bbls load water in 1 hour. Well started flowing. Cleaned up to pit for 1 3/4 hours, then turned through test equipment for 3 hour test. FTP-150 psi on 32/64 choke. Gas rate at beginning of test 374 MCFD. Shut in at 10:15 P.M. 8-7-71. SITP in 1 minute was 400 psi, 5 min 500 psi, 10 min 650 psi, 15 min 850 psi, 20 min 940 psi, 25 min 1025 psi, 30 min 1120 psi and 35 min 1170 psi. Acidized Penn Lime perfs with 4000 gallons 15% HCL with one gallon inhibitor and 2 gallons surfactant per 1000 gallons acid. Max 2700 psi. Treated at 42 B/M at 2500 psi. Total load 122 bbls-water. ISIP vacuum. Swabbed 7 bbls load water in 1 hour. Well started flowing. Cleaned up to pit for 2 hours then turned through test equipment for 5 hour test. Flowed at rate of: 2.54 MMCFD, 20/64 choke, FTP 1100 psi, 3.40 MMCFD, 25/64 choke, FTP 975 psi. Shut in at 11 PM 8-8-71 when surface equipment malfunctioned. 15 min SITP 1300. Recovered 45 bbls load water leaving 77 BLW to recover. (see attachment) 18. I hereby certify that the foregoing is true and correct District Admin. Supervisor DATE August 20, 1971 (This space for Federal or State office use) CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

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O & G CONS. COMM.

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Monsanto-Navajo A #1 -- Page 2

Penn Lime perfs 5653-5660 (temporarily plugged off), Penn Dolomite perfs 5553-5577. Released RTTS and pulled out of hole. Ran Halliburton Retrievable Bridge Plug on 2 3/8" EUE tubing and set at 56151. Displaced sand on top of bridge plug from 5615 to 5606. Tested bridge plug to 700 psi. Held okay. Perforated 7 -- 0.50" holes in Pennsylvanian Dolomite 5553, 5557, 5573, 5574, 5575, 5576, and 5577. Testing Penn Dolomite. Ran RTTS on 2 3/8° EUE tubing and set at 5511 to test Penn Dolomite zone. Swabbed dry recovering 20 bbls load water in I hour. Acidized with 2000 gallons 15% HCL. Break down 1800 psi at 2 B/M. Treated at  $3\frac{1}{2}$  B/M at 1700 - 2000 psi. Max 2000 psi, ISIP 1100 psi, 15 min SIP 900 psi. Total load 72 bbls water. Back flowed 20 bbls load and died. Swabbed 52 bbls load water lowering fluid level to 52001. All load recovered. Well flowing gas TSTM (est. 25 MCFD). Shut in for 1 hour. Fluid level raised 100 in hole. Swabbed 1/10 bbl water with trace of oil. Shut in overnite. 1 min SIP 20 psi, 30 min SIP 50 psi, I hour SIP 80 psi. 8 hour SITP 475 psi. Fluid level 2000 from surface. Made I run with swab recovering 4 bbls acid water with a trace of oil. Well flowed  $\frac{1}{2}$  hour and died. It was necessary to

pull swab once per hour during 10 hour testing period, recovering an additional 3 bbls of acid water with a trace of oil. Well flowing gas TSTM. Estimated rate 25 MCFD. Shut well in. I min SIP 20 psi, 30 min SIP 55 psi, 90 min SIP 90 psi. Acidized Penn Dolomite perfs with 10000 gallons 28% HCL. Max 3200 psi, AIR 6.5 B/M at 2900 psi. ISIP vacuum. 320 BLW to recover. Swabbed 80 bbls load water in 2 hours. Well started flowing. Cleaned up to pit for 2 hours recovering 20 bbls load water then turned through test equipment for 4 hour test. Flowed at rate of: 3.44 MMCFD, 30/64" choke, FTP 875 psi. Well still not cleaned up. 220 BLW to recover. Shut in at 10:30 PM. [SIP 1000 psi,

30 min SIP 1150 psi.

8 hour SITP 1325 psi. Flowed Penn Dolo zone 10 hours recovering 105 barrels of load water. At conclusion of flow period, well producing at rate of 4.2 MMCFD. FTP 800 psi, 32/64" choke. 115 BLW to recover. Shut in at 6 PM 8-13-71. 15 min SIP 1300 psi. Killed well. Released RTTS and lowered to top of sand bridge at 5606. Tried to reverse sand off top of retrievable bridge plug but were not successful. No circulation. Made trip to lay down RTTS and run retrieving head. Round tripped tubing to remove sand plug. Used 200 additional barrels of fresh water to circulate sand off R.B.P. set at 5615. Caught R.B.P. and moved up hole and reset at 53001. Circulated hole and tested R.B.P. to 1500 psi. Held okay. Pulled tubing and retrieving head. Perforated Penn Desert Creek zone with 5 -- 111 holes 5266, 5267, 5268, 5269, and 5270. Ran RTTS on 2 3/811 EUE tubing and set at 5225. Swabbed 19 bbls load water in 2 hours lowering fluid level to 4900 from surface. No fluid coming in hole. 915 bbls load water to recover. Treated Penn Desert Creek perfs with 500 gallons MCA. Max 2150 psi, Rate 3 B/M at 200 psi. Total load to recover 45 bbls water. ISIP 1550 psi, 10 min SIP 1400 psi, Bled well down. Swabbed well down to 5000 recovering all load water in 3 hours. Fluid coming into hole at rate of 1 bbl of oil per hour. Swabbed 4 bbls of 41 gravity oil in 4 hours. Swabbing at rate of 1 bb1 fluid/hour (70% oil). Flowed 45 BLW in 1 hour. Well died. Swabbed 4 BO and 55 BLW in 6 hours. 43 BLW to recover. Treated Penn Desert Creek perfs with 4000 gal 15% HCL. Max 3200 psi. AIR 42 B/M @ 2800 psi. ISIP 1500. 10 min SIP 1200. Flushed W/1000 gal treated water. Total load to recover 143 bbls. Swab testing. SITP 375 psi in 14 hours. F.L. 5175 from surface. 33 BLW to recover. Influx rate  $\frac{1}{2}$  B.F. per hour, (30% oil). Swab testing. SITP 350 psi in 14 hours. Swabbed 4 BO and 5 BLW in 92 hours. F.L. 5175 from surface. 28 BLW to recover. Chlorides 30300 PPM PH 6.0.

RECEIVED

AUG 24/19/1

O & G CONS. COMM.

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August 11,1971

Gentlemen;

We have received samples on the following well:

ities Service Oil Co.

I Wonsanto Navajo A 1
1980/Fnl & 1050/Fel
Sec.21-40N-29E
Apache Co, Arizona

Thank You,

Mrs. Jo Ratcliff, Mgr.

# 559

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\*See Instructions on Reverse Side

Permit 559

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In for 90 minute 15:  test. He surface pi slight rainbow of o 60 Min. FSIP 320 ps Atoka. He water cas with week blow. Cli surface in 25 minut tool for 90 min FSI drilling mad. 15 m psi, F.F. 214 psi, 5545-5670 (125") Lo  18. I hereby certify that the fo SIGNED  (This space for Federal or	107#. ISIP 1418 (98 min) out) 2462. DST No. 2: 5/8" top choke. Too! ope IP, then opened well for ressure. Shut in for 60 il. Prefice 53 pel. 30 il. HCP in a out 2409 pel shion, 3/4" battom choke osed for 90 min 151P. H as with good blow decree P. Recovered 300° of 41 iln prefice 80 pel = 107 90 min FSIP 1086 pel. HC mer Pinkerton Trail. Ho oregoing is true and correct  TITLE	Sigs-5221 (26') Barished for 15 minute police minute flow period minute flow period minute fig. Recovering 1080 f. BST 1080 f.	(90 min); FEIR 615 (30 min), or Crock 105 make blook 5 min 5 must blook 5 min 5 must blook 5 min 5 min 6 min
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In for 30 minute 15.  In for 30 minute 15.  In for 30 minute 15.  In for 30 minute 15.  In for 30 minute 15.  In for 30 minute 15.  In for 30 minute 15.  In for 30 minute 15.  In for 30 min f5.  In for 30 minute 15.  07#. ISIP 1418 (98 min) out) 2462. OST No. 2: 5/8" top choke. Tool ope 1P. then opened well for ressure. Shut in for 68 il. Prefice 53 pel. 30 il. MCP in a cut 2489 psi shion, 3/4" bottom choke osed for 50 min 151P. No mes with good blow decree P. Recovered 300° of 41 sin preflow 80 psi — 107 90 min f51P 1086 psi. No pregoing is true and correct  TITLE  State office use)  VAL, IF ANY:	Sigs-5221 (26') Barished for 15 minute piece for 15 minute period minute flow period minute file part of the file for 15 minute file for 15 minute file for 15 minute for 50 minute for 50 minute fing to week blow.  gravity oil and 300 psi, 50 min 1517 23 p (in 6 out) 2516 period for cushion, 3/4"  District Admin. Superiod for 50 minute file for 50 minute for 50 min	(90 min), FEIR 615 (30 min), for Crock M5 make block block block block block block block block block block block block block block block block min with min profice of 1250-1275 (125) min profice flow partod. Bre to the furble pressure. Closed of heavy of Employed Continued on attached 2000 choke (Continued on attached 2000) arvisor DATE August 6, 1971	
and 115, HCP (in 6 of 3/4" bottom choke, in for 90 minute 15; test. He surface problem of 0 of 15 minute 1	107#. ISIP 1418 (98 min) out) 2462. OST No. 2: 5/8" top choke. Tool ope 1P. then opened well for ressure. Shut in for 68 il. Prefice 53 pel. 30 il. MCP in a cut 2489 psi shion, 3/4" bottom choke osed for 50 min 151P. No mes with good blow decree P. Recovered 300° of 41 sin preflow 80 psi — 107 90 min f51P 1086 psi. No pregoing is true and correct  TITLE  State office use)  VAL, IF ANY:	Sigs-5221 (26') Barished for 15 minute police minute flow period minute flow period minute fig. Recovering 1080 f. BST 1080 f.	(SO min). Fall 615 (SO min).  TO Crock Ma speer cushion, reflow of the week blow throughout the sold blow throughout the sold blow throughout the sold blow the sold blow the sold blow the sold speed for 15 min, prefice of low porton for 15 min, prefice of heavy of a min cush cut of heavy of a min cush cut of heavy of a min cush cut of heavy of a min cush cut of heavy of a min cush choke (Continued on a tracked page)  Tylear DATE TO ELECTRICATE TO THE TOTAL THROUGH THE TOTAL THROUGH THE TOTAL THROUGH THROU

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### CITIES SERVICE OIL CONPANY, Monsento-Havelo "A" #1

Opened tool for 15 min preflow. Flowed with strong blow. Ges to surface in 4 minutes. Closed tool for 90 min 181P. Reopened with strong blow increasing to 550 psi max. surface pressure on 3/4" choke, decreasing to 410 psi at conclusion of test. Ges rate 5.945 MMCFD. Closed tool for 90 min FSIP. Recovered 300° of heavy gas cut mud with trace of condensate. 15 min preflow 535 psi -- 562 psi, 90 min 181P 1525 psi, 1.F. 481 psi, F.F. 669 psi, 90 Min FSIP 1499 psi, BHT 120° F, MCP in 6 out 2651 psi.

DST No. 5: 5948-6000 (52°) Upper Mississippian. No water cushion, 3/4" bottom choke, 3/4" top choke. Opened tool for 15 min preflow. No blow. Closed tool for 60 min 181P. Recovered 5° drilling mad. 15 Min preflow 53 psi -- 133 psi, 1.F. 1379 psi, F.F. 80 psi, 60 min FSIP 347 psi, MCP in 2992 psi, MCP out 2886 psi, BHT 132° F.

Electric log tops: Permian DeChelly 2738 (+3658), Organ Rock 3102 (+3294), Cutler 3691 (+2705), Penn Hermose 4442 (+1954), Ismay 5036 (+1360), Desert Creek 5178 (+1218), Akah 5322 (+1074), Berker Creek 5478 (+918), Moles 5779 (+597), Miss. Lime 5870 (+526), Miss. Dolomite 5940 (+554), T.D. 6111.

Ren 144 jts. (5570° 23# K-55 & 550° 26# K-55) 7" 00 casing set and comented P 6111° W/165 sacks Halliburton Lite W/6% salt + 210 sacks Class C W/6% salt +  $\frac{1}{2}$ % CFR-2 coment. Plug down P 12:50 P.H. on 7-31-71. WOC 8 hrs. Ren temperature survey. Top of cament P 4280°. WOC on 7" casing for a total of 48 hrs. Tested 7" casing with 1500 psi for 30 minutes with no drop in pressure. DO 6083. Perforate Hiss. Dolo. W/1-0.49" hole each P 6014, 6016, 6018, P 6020. Symbold dry.

PZ-PW ses-izelg Keuffel & Caeles. Logarithmic, 3 X 6 Cycles. F. C. C. Sheet. Eabe is 3. s. a. 4 5 6 7 8 9 1

log Q, = 3.66370

log Q = 3.08636 1000 10,000 Q,= 4610 Q MCFD log Qz = 3.08636 Q2=1220 L AOF=7.4 MMCFD N = 0.57734 = 0.577  $\mathcal{Y}$ 

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July 26, 1971

Memo from W. E. Allen, Director Enforcement Section

Memo to: Cities Service Oil Company Monsanto #1-A Navajo SE/4 NE/4 Sec. 21-T40N-R29E Apache County Our File #559

Phone call from Cliff Robertson to report results of DST #? from 5250-5375' in the Akah. Recovered 300' of 40 gravity oil, 300' of heavy gas cut oil. Flowing pressure 214 pounds. Final shut in pressure 1086 pounds. DST #? from 5545-5670' in the Pinkerton Trail. Gas to surface in four minutes. Flowed at a rate of 5.9 MCF through 3/4" choke. Final flowing pressure 410 PSI.

Revised estimated total depth 6200'. Original projected total depth was 5700'.

i		. <del>~</del> ~ ~ ~ ~	anna dama	Form approved.	·
Form 9- 31 (May 1 63)	Up ED ST	AILS	SUBMIT IN TRIP ATE (Other instruction in re-	Budget Bureau  5. LEASE DESIGNATION AT	
	EPARTME OF T		L( Asize Ride)		
	GEOLOGICAL	SURVEY		14-20-0603 6. IF INDIAN, ALLOTTEE	-1522
SUNDI not use this for	RY NOTICES AND m for proposals to drill or to se "APPLICATION FOR PER	REPORTS Of deepen or plug back	N WELLS k to a different reservoir. comis.)	Navajo (LSE#	03-2399-01
OIL CAS WELL	OTHER			8. FARM OR LEASE NAME	
2. NAME OF OPERATOR					
American Fu	els Corporation	n		Monsanto-N	avajo "A"
3. ADDRESS OF OPERATOR		9. WELL NO.			
4. LOCATION OF WELL (Rep See also space 17 below. At surface	tle Blvd. N.E.S ort location clearly and in acc  LOSO FEL of Sec	ordence with any St	ite requirements.	10. FIRLD AND POOL, OR Wildcat 11. SEC., T., R., M., OR BI SURVEY OR AREA	
Apache Count		•			ON, R29E
14. PERMIT NO.	15. BLEVATION	S (Show whether DF, I	rt, as, etc.)	12. COUNTY OF PARISH	18. STATE
	6	383 Ġp	<u> </u>	Apache	<u>Arizona</u>
16.			ture of Notice, Report, or C	Other Data	
NO	TICE OF INTENTION TO:	1	BURSEQ	GENT REPORT OF:	
TEST WATER SHUT-OFF FRACTURE TERAT SHOOT OR ACIDIZE	PULL OR ALTER O		WATER SHUT-OFF FRACTURE TREATMENT SHOOTING OR ACIDIZING	REPAIBING W ALTERING CA ABANDONMEN	BING
REPAIR WELL	CHANGE PLANS		(Other) Change	of Operator	<u>[XX</u>
(Other)	<u> </u>		(Nors: Report results Completion or Recomp	s of multiple completion of detion Report and Log for	m.)
	OMPLETED OPERATIONS (Clear) well is directionally drilled, gi	y state all pertinent ve subsurface location	details, and give pertinent dates one and measured and true vertice	including estimated date	e of starting apv

Change of Operator:

From:Cities Service Oil Company P.O. Box 69 Hobbs, New Mexico 88240

To: American Fuels Corporation 2921 Carlisle, N.E. Suite 200 Albuquerque, NM 87110

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0 & G CONS. COMM.

18. I hereby certify that the foregoing is true and correct  SIGNED FURLISM MING ON TITLE Agent	DATE	7/11/73
(This space for Federal or State office (190)  APPROVED BY	DATE	

\*See Instructions on Reverse Side

1559

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WELL SITE CHECK

$\infty$ 1 1	Date /-/-//
Contractor bodfland Bros.	Person(s) Contacted Corester (Driller)
Spud date 6-30-7/ Rotary Type Rig 11-15 Cable	770
	Present Operations Drilling @
Samples	Air
Pipe 9860 859 CEMENT Circ	Drilling with Mud
Water Zones	Size Hole 8/4"
Lost Circ. Zones None 30 Pal	Size Drill Pipe 3/2
Formation Tops	Type Bit Jecurity
Cores, Logs, DST	No. Bit Drilling Rate / Min. per 4
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	Formation
Crews 3- 4 Man	Lithology
	Lithology
REMARKS, PHOTO, MAP	Lithology
REMARKS, PHOTO, MAP  THE Original plan was	Lithology
REMARKS, PHOTO, MAP  THE original plan was  at 1100 + In running	Lithology  to set 95% sarface  Pipe it became stuck  Pipe it became stuck
REMARKS, PHOTO, MAP  THE Original plan was  at 1100 ±. In running  at 859 and efforts	Lithology  to set 95% sarface  pipe it became stuck  to free the pipe  the poperators Cauldain
REMARKS, PHOTO, MAP  THE Original plan was at 1100 + In running at 859 and efforts  were un successful	Lithology  to set Phisarface  pipe it became stack  for free the pipe  the operators Cauldain  The operators Cauldain  Phil McGrath gave
REMARKS, PHOTO, MAP  THE original plan was  at 1100 + In running	Lithology  to set Phisarface  pipe it became stack  for free the pipe  the operators Cauldain  The operators Cauldain  Phil McGrath gave

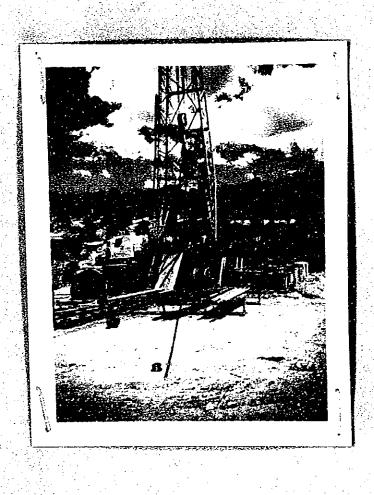
**〜** \

WELL NAME S59

Permit No. Confidential: Yes No

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#55

7-7-71

HAVAJO TRIBAL CONTRACT

Form 9-331	UN ED STATES	SUBMIT IN TRIPIS FE	Form approved Budget Bureau	l. No. 42-R1424.
(May 1963) DEP/	RTMENT OF THE INTERIO	R (Other Instructions reverse side)	5. LEASE DESIGNATION A 14-20-0603-15	22 No. 2
	NOTICES AND REPORTS O proposals to drill or to deepen or plug ba PPLICATION FOR PERMIT—" for such pro	ck to a different reservoir.	NAVAJO (LSE #0	
OIL K GAS	HER		7. UNIT AGREEMENT NAT	
2. NAME OF OPERATOR CITIES SERVICE OIL			S. FARY OF LEASE NAM MONSANTO HAV	FIG THE
3. ADDRESS OF OPERATOR	, NEW MEXICO 88240		9. WELL NO. 1	(4000)
L LOCATION OF WELL (Report loc See also space 17 below.) At surface	ation clearly and in accordance with any	State requirements.*	VILOCAT	THE SECTION AND ADDRESS.
1980 FML & 1050 FE	L, SECTION 21, TAON, R 29	E	SEC 21-TOOM	MS. ANDER DE DE LE LE LE LE LE LE LE LE LE LE LE LE LE
14. PERMIT NO.	15. ELEVATIONS (Show whether DP.	BT, GR, etc.)	12. COUNTY OR PARISH	ARIZONA
	eck Appropriate Box To Indicate N		Other Datas Datas Officer	eallyes a
TEST WATER SHUT-OFP	FULL OR ALTER CASING MULTIPLE COMPLETE	WATER SHUT-OFF FRACTURE TREATMENT	REPAIRING O	ASING SECTION
SHOOT OR ACIDIZE REPAIR WELL	ABANDON* CHANGE PLANS	(Other) Penart resul	RFACE CASING ts of multiple completion pletion Report and Log to	on Wello
nent to this work.) *	ETED OPERATIONS (Clearly state all pertluens directionally drilled, give subsurface locations)	t details, and give pertinent date tions and measured and true vert	s, including estimated da lend depths for all marker	te of starting and
set ( Ob 3 give	osed casing & cementing p @ 1100 ft. Drilled 12 1/ 2.3# H-40 casing. Casing in by Mr. P. T. McGrath, S ing program 7-5-71. Cemen cele, followed by 100 sax	stuck at 911.81 ft. District Engineer, Unted W/350 sex Hallil Class A W/2% Calcius	Oral approva S.G.S., to alto burton Light W/ a Chloride 5 Pl	tubes resilent  578 May 10 million  58 May 10 million  174 May 10 million  175 May 10
dowr Test	n @ 6:10 P.M. 7/5/71. Cer ted to 1000 psi for 30 min /71. prilling ahead.	ment circulated (45)	rilled plus part	ob alisosjove britis prijes vali krojest prijesrojal briss prijesrojal selov Prijes principalito selov
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18. I hereby certify that the f	oregoing is true and correct		nete at elimentoriii del de elimpoterii del de elimpoterii del de elimpoterii del de elimpoterii del delimpoterii delimettorii	si eggel solla eggel shibid eggl burdens eggl burdens t telde soll e
SIGNED	feulilla TITLE	District Hanager	DATE SU	3: 125
(This space for Federal or	r State office use)	•	DATE:	
CONDITIONS OF APPRO			ŘĚČI	EIVED

\*See Instructions on Reverse Side

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HAVAJO TRIBAL CONTRACT DEPARTMENT OF THE INTERIOR (Other instructions of re-Form approved.
Budget Bureau No. 42-R1424.
5. LEASE DESIGNATION AND SERIAL RO. 14-20-0603-1522 GEOLOGICAL SURVEY 6. IF INDIAN, ACLOTTEE OR TRIBE NAME SUNDRY NOTICES AND REPORTS ON WELLS (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.

Use "APPLICATION FOR PERMIT—" for such proposals.) 10-6652-508 351) OLAYAN 7. UNIT AGRESMENT NAME ī. OIL WELL GAS OTHER S. FARM OR LEASE NAME 2. NAME OF OPERATOR HOMSANTO-NAVA 10 'AU CITIES SERVICE DIL COMPANY 3. ADDRESS OF OPERATOR P.O. BUX 69, HOBBS, NEW HEXICO 88240 LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)
At surface 10. FIELD AND POOL, OR WILDCAT WILDEAT E 1990 FML & 1050 FEL of Section 21-ThGM-R29E, Apache County. 11. SEC., T. R., M. COR BIAL AND SURVEY OR LURA Sec 21, 1964, 1296 Arizons. 12. COUNTY OR PLRISH | 13. STATE 15. ELEVATIONS (Show whether DF, ET, GR, etc.) 14. PERMIT NO. Append 6383 Gr Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data 16. SUBSEQUENT REPORT OF BEFAIRING WILL WATER SHUT-OFF PULL OR ALTER CASING ALTERING CASING TEST WATER SHUT-OFF FRACTURE TREATMENT MULTIPLE COMPLETE PRACTURE TREAT TRANDONMENT SHOOTING OR ACIDIZING ABANDON\* SHOOT OR ACIDIZE (Other) Speed Date REPAIR WELL CHANGE PLANS (Note: Report results of multiple completion on Wells Completion or Recompletion Report and Log form) 17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting and proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and iones pertinent to this work.)\* TO 53' Rigged up. Spudded 12 1/4" hole June 30, 1971. Drilling should Proposed to drill to a T.D. of 5700" and test the Mississippi formstion. 18. I hereby certify that the foregoing is true and correct DRIGINAL SIGNEL TITLE District Admin. Supervisor C. D. ROBERTSON

\*See Instructions on Reverse Side

modification at the property of the property o

(This space for Federal or State office use)

APPROVED BY APPROVAL, IF ANY:

SIGNED

(§

July 1, 1971

Memo from W. E. Allen, Director Enforcement Section

Memo to: Cities Service Oil Company Monsanto #1-A Navajo SE/4 NE/4 Sec. 21-T40N-R29E Apache County Our File #559

Well spudded at 11 p.m. 6-30-71. Drilled 12½" hole to 5'. Shut down due to mechanical difficulties.

Loffland Brothers is contractor on this well.

• Form 9-1123 (Rev. Dec. 1957)

(Submit in triplicate to appropriate Regional Oil and Gas or Mining Supervisor)

### DESIGNATION OF OPERATOR

The undersigned is, on the records of the Bureau of hand-blasquares, indian Affairs,

holder of Navajo Tribal lease

DISTRICT LAND OFFICE: Window Rock, Arizona

SERIAL No.:

14-20-0603-1522

and hereby designates

Cities Service Oil Company NAME:

Cities Service Building, Bartlesville, Oklahoma 74003 Address:

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Operating Regulations with respect to (describe acreage to which this designation is applicable):

Township 40 North, Range 29 East, G.S.R.M.

Section 21: All Section 22: All Section 27: All

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the supervisor of any change in the designated operator.

MONSANTO COMPANY

Attorney-in-Fact

1300 Post Oak Tower, 5051 Westheimer,

Houston, Texas 77027 (Address)

<u>June 8, 1971</u>

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Q & Q CONS. COMM.

Cities scruice Menisanto 1-A Navajo.

Turni South off Highway 160 (Navajo Rt. 1) 9:1 miles East of Red Mesa Trading post. Follow Main road 4.2 miles Take Loft hand fork for 1.7 miles to location

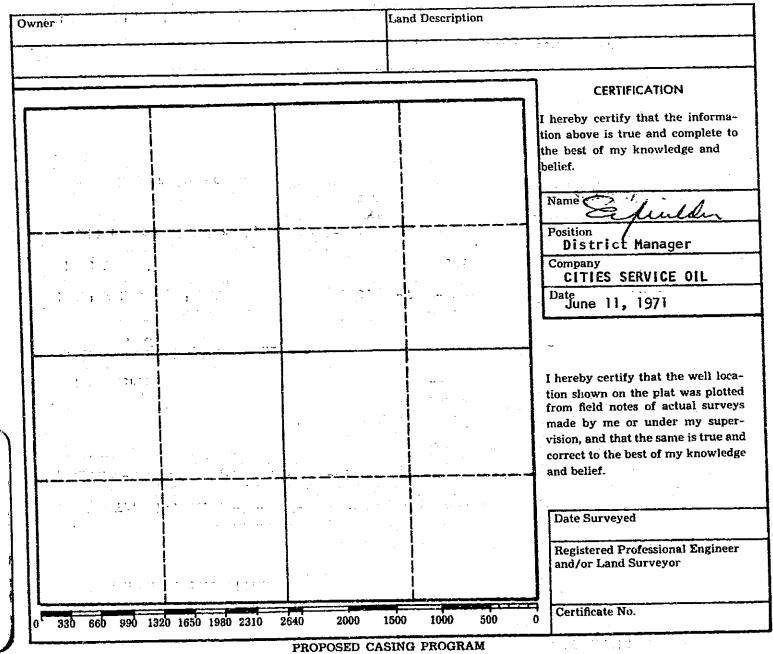
APPLICATE	Y FOR PERMI	T TO DRILL OR			
Application to drill	<b>Q</b>	R	E-ENTER O	TD METT []	
CITIES SERVICE OIL COMPAN	14				
ME OF COMPANY OR OPERATOR BOX 69	H0BB	S	NEW	MEXICO 88240	,
	City			State	
dress					
Unknown at this filing	·	<del></del>	<u>,</u>		
Illing Contractor		·			
drees			<del></del>		
avajo Tribal Cont.#14-20-060	1522 3- description of	P WELL AND LEASE			
dend Siete on Indian Lease Mumber, or if fee	lease, name of lessor	Well number		Elevation (ground)	
onsanto-Navajo "A" (Lse # 03	1-2399-01)	Distance from propose	d location to	named drilling	
arest distance from proposed location property or lease line:		Distance from propose completed or applied—	TOL METI OU I	ME PAINE LEADE.	fect
	1980 reetN	Number of wells on le	ase, includin	g this well,	
imber of acres in lease:		Number of wells on se completed in or drilling	g to this res	ervoir:	÷
1920 Acres			A.ddress		<del> </del>
lease, purchased with one or more sels drilled, from whom purchased:	DC .	·			-4,
				Dedication (Compi	y with Rule 19
ell location (give footage from section lines)		ownship-range or block as 21-T40N-R29E	ud żniasł	80 Acres	
1980 FNL & 1050 FEL	I SEU - 4	County	<u> </u>		; .
LII NCAT		APACHE	<del> </del>		
Metance, in miles, and direction from hearest to 50 miles west of Shiprock, N	ew Mexico	-			·
roposed depth:	Rotary or cable took				
5700	Rotary Organization Report			e of \$25.00	
Bond Status Required-Approved	On file X		Attached	<u> </u>	
Remarks:		•			
			•		
•				·	
		D:	istrict	Manager	of
CERTIFICATE: I, the undersigned, under the	penalty of perjury,	State that I sim wit-			
ITIES SERVICE OIL COMPANY report was prepared under my supervision and	direction and that the	and that I am authorized facts stated therein are we	by said com	pany to make this rep feamplele to the best	ort; and hat
report was prepared under my super small		. {	= h	ullen	
RECEIVED		Signature			
JUN 1 7 19/1		June Date	11, 1971		
O & G CONS. COMM.					
559			g	OF ARISON!	
Approval Date:		OII L		OF ARIZONA ERVATION COMM	IȘSION
Approved By: USCO	1		Application	to Drill or Re-enter	•
Notice: Before sanding in this form be sure all information requested. Much und ence will thus be avoided.	that you have given necessary correspond-	Form No. 3		-	

(Complete Reverse Side)

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1. Operator shall outline the dedicated acreage for	both oil and	gas wells on the plat.
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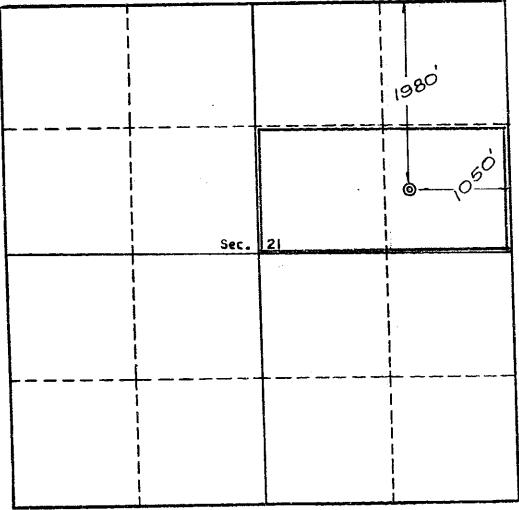
- 2. A registered professional engineer or land surveyor registered in the State of Arizona or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.
- 3. All distances shown on the plat must be from the outer boundaries of the Section.
- 4. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES NO X
- 6. If the answer to question four is "no," list all the owners and their respective interests below:



Sacks Cement Cementing Depths Bottom Grade & Type Size of Casing Weight 1100 1100-0 Circulate 9 5/8" 5½" <del>-0-</del> H-40 ST&C 32.3# 5700 5700-4300 350 sacks J-55 ST&C -0-14#

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Company Cities Service Oil Co. Well Name & No. Location 1980 feet from the North line and 1050 feet from the East line. Sec. 21 ., T. 40 N., R. 29 E., G. & S. R. M., County Apache ......, Arizona Ground Elevation 6383



Scale, 1 inch = 1,000 feet

Surveyed June 5

This is to certify that the above plat was prepared from field notes of actual surveys made bake or under my supervision and that the same are true and correct to the description knowledge and belief.

Ernest V. Echohawk

RECEIVE Begistered Land Surveyor Arizona Registration No. 2311

JUN 1719/1

O & G CONS. COMM.

JV

ECHOHAVK

PIZONA, 113







## PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION, STATE OF ARIZONA,

To:	CITII	S SERVICE		NY		
		(0	PERATOR)			
	to	drill a well	to be know	n as		
	CITIES SERVI	CE OIL COM	PANY MONSA	rto #1-a r	OLAVA	
			L NAME)			
ocated 19	80° FNL - 1050	• FEL				
SectionTo	waship	Range <b>2</b>	9 <b>E</b>	APACHE		County, Arizona.
The	s/2	nr/4		•	<del></del>	of said
Section, Township a	nd Range is dedi	cated to thi	s well.			
in full compliance &		laws, statu	ites, rules ai	nd regulation	ns of the Sta	te of Arizona.
Issued this	Latday of			JUNE		_•
	ALLOWED TO PROD IN FULL COMPLIS. FORUS (desc		OH AND	GAS COM	SERVATION	commission Exemple

PERMIT

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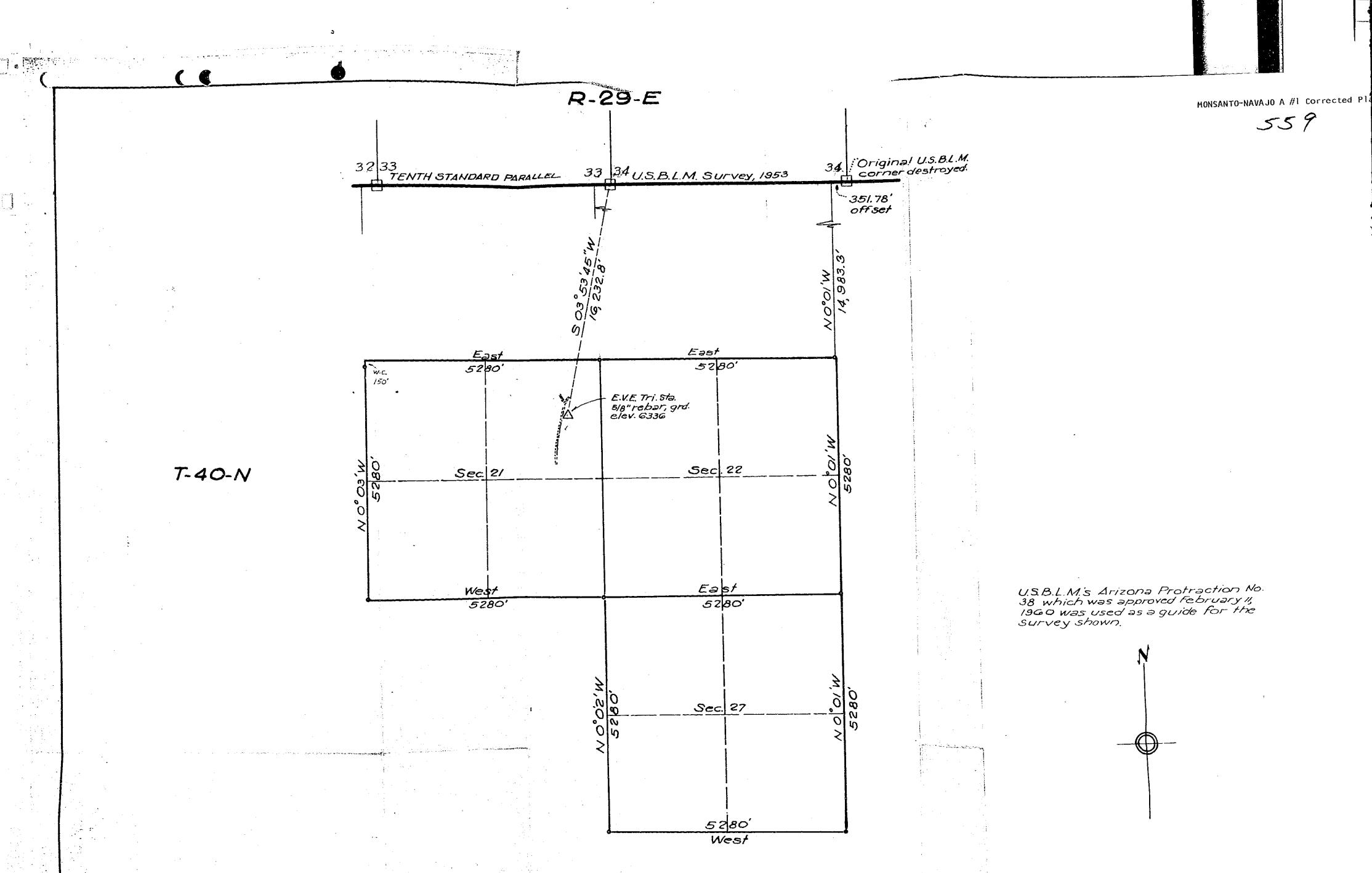
**559** 

RECEIPT NO. 2893 API NO. 02-001-20145 State of Arizona
Oil & Gas Conservation Commission

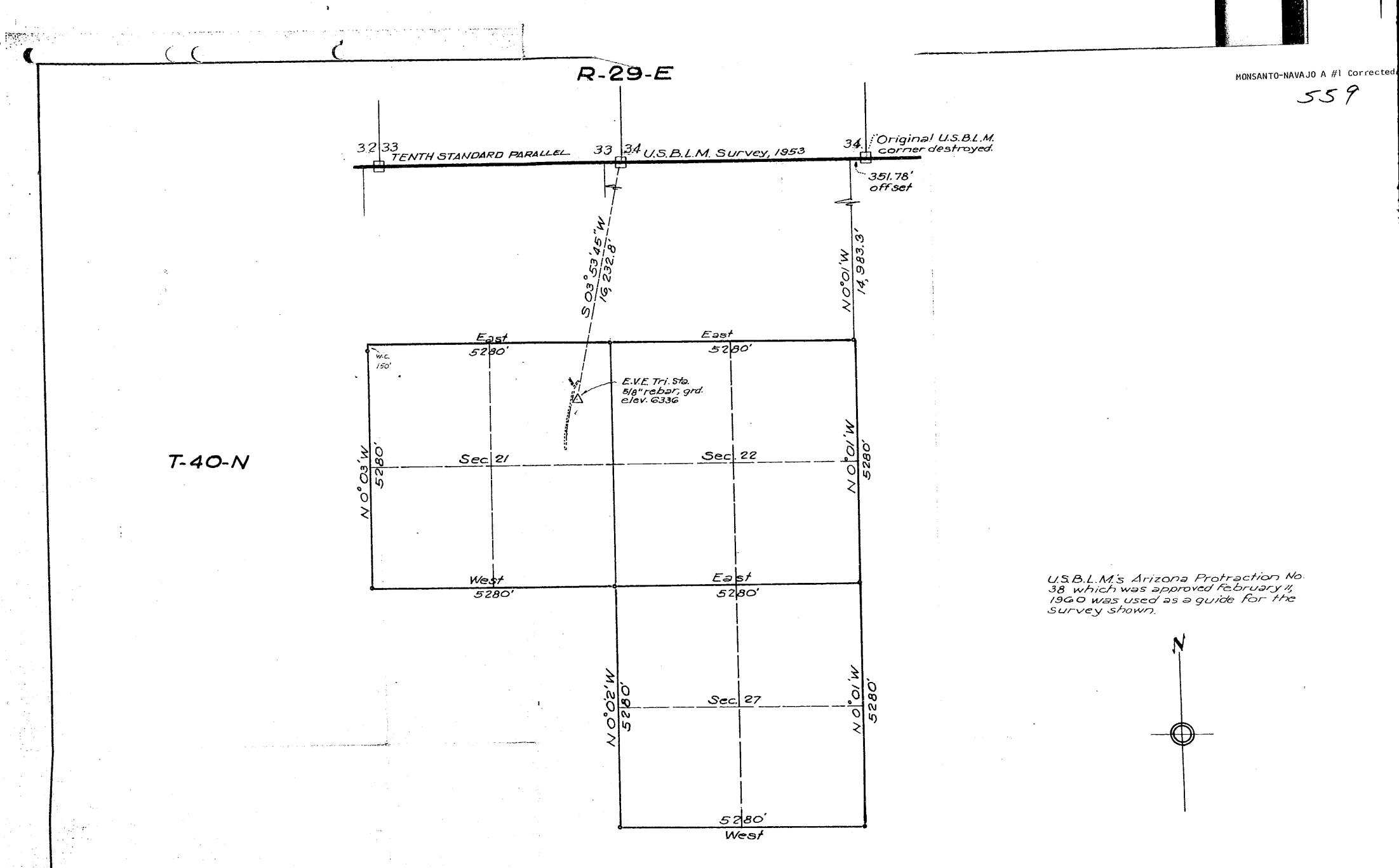
Permit to Drill

FORM NO. 27

SAMPLES ARE REQUIRED

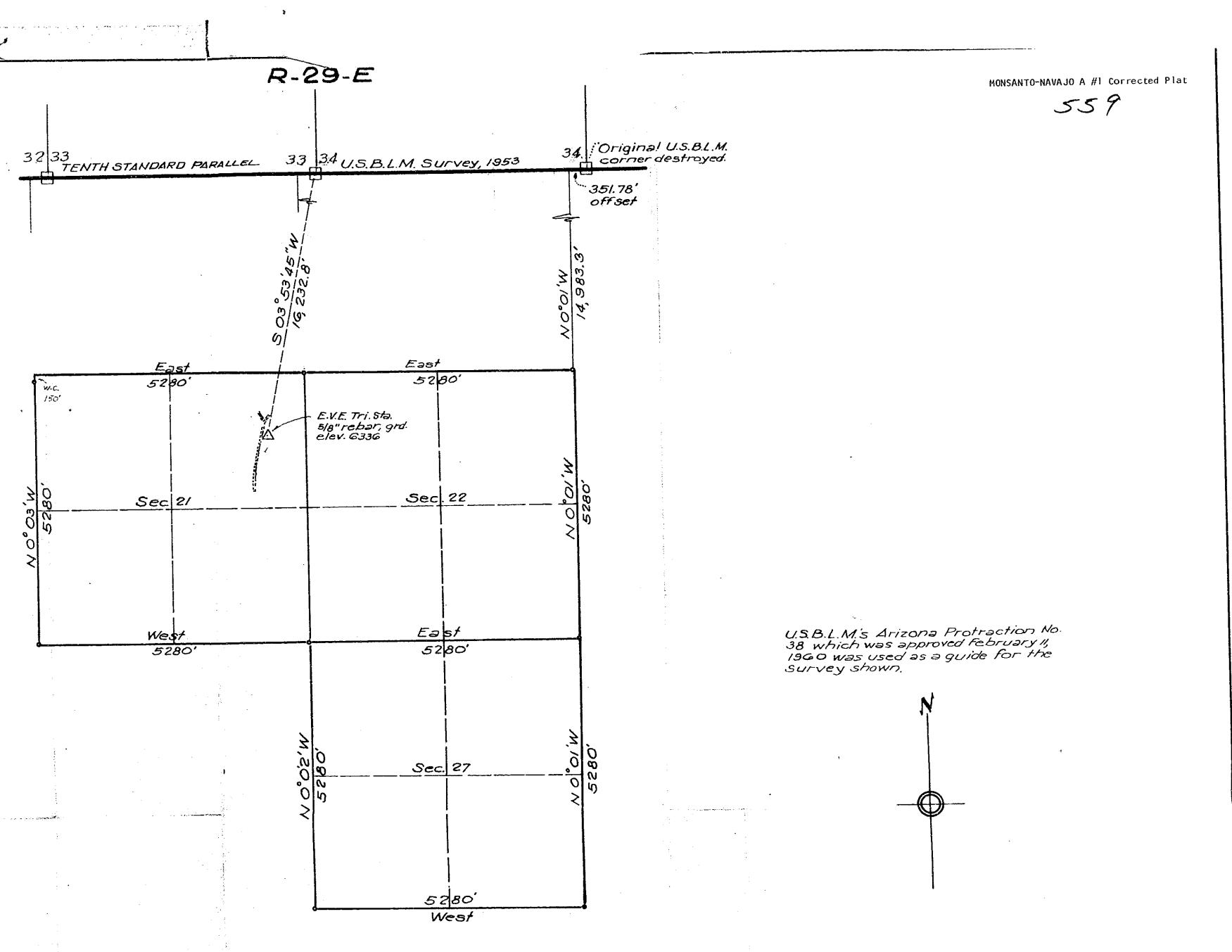


AREA OF THE SHOWN THREE SECTION TRACT IS 1920.0 AC.

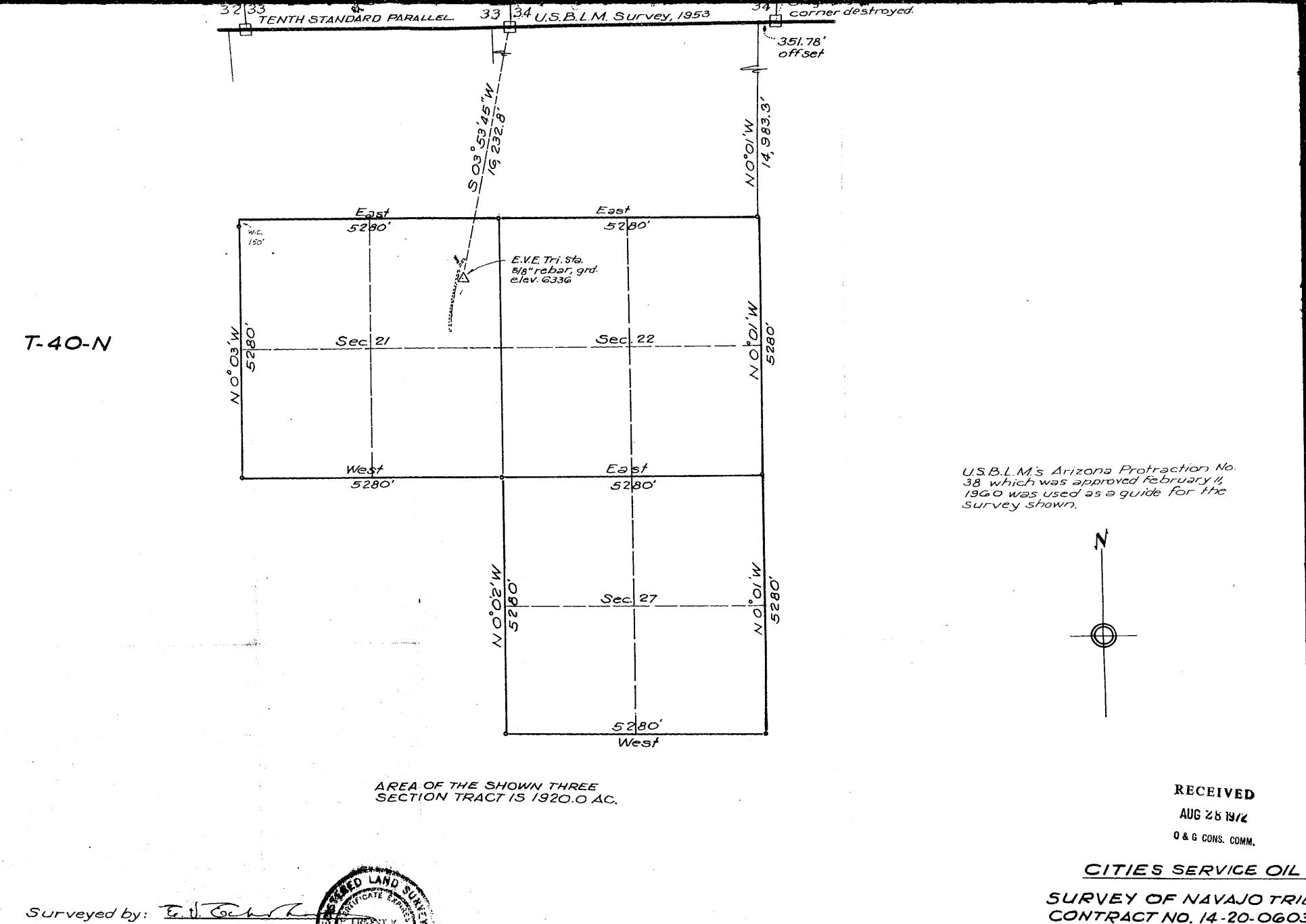


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AREA OF THE SHOWN THREE SECTION TRACT IS 1920.0 AC. RECEIVED
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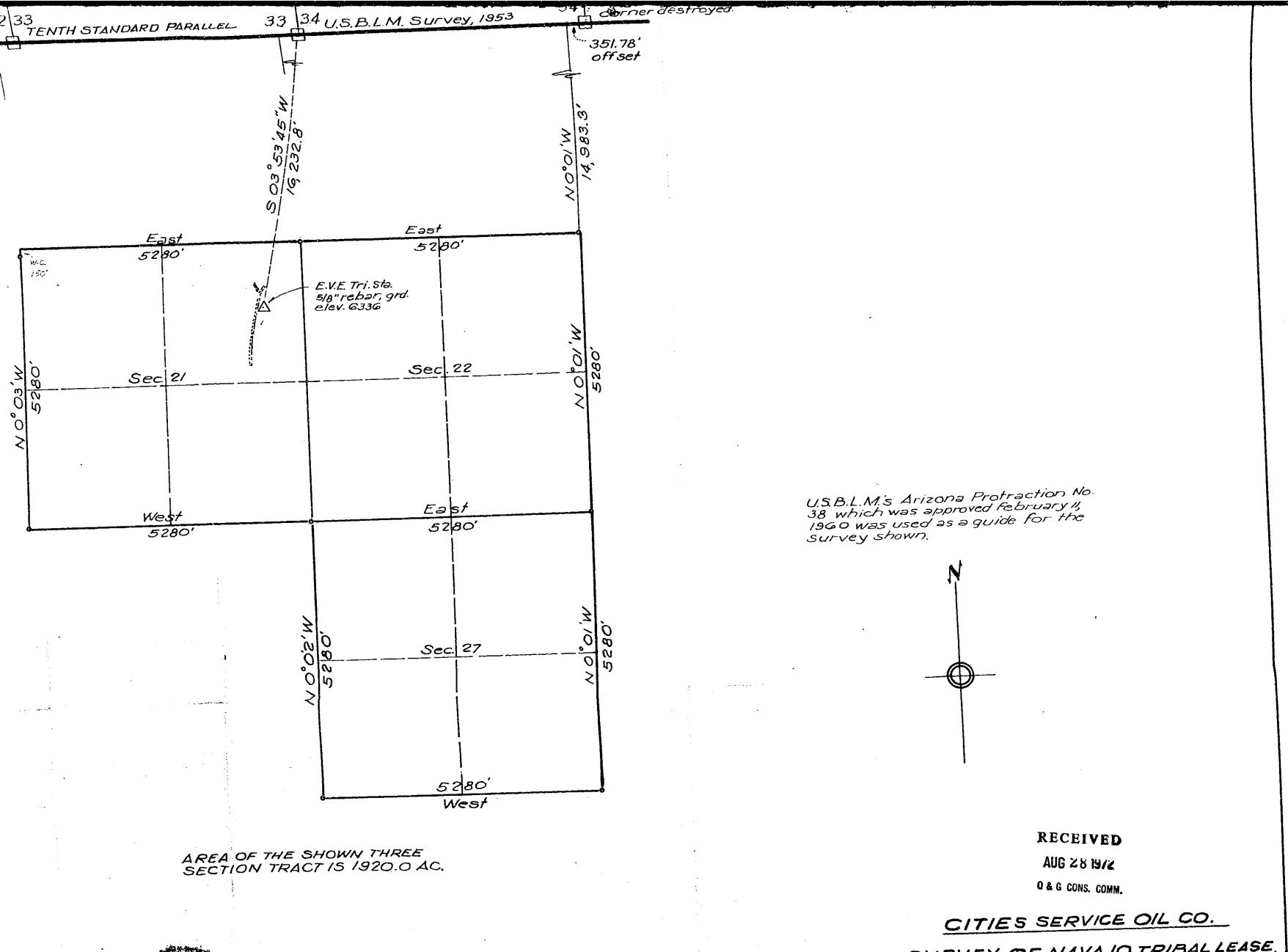
Ernest V. Echo Reg. Land Sur Arizona Reg

TANKEN TANK

SURVEY OF NAVAJO TRIB

CONTRACT NO. 14-20-0603 COMPRISED OF SECTIONS 27, T-40-N, R-29-E, G.85 APACHE COUNTY, ARIZ

JUNE, 1971 SCALE, 4'



Ernest V. Echolo Reg. Land Surve Arizona Reg N

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SURVEY OF NAVAJO TRIBAL LEASE, CONTRACT NO. 14-20-0603-1522, COMPRISED OF SECTIONS 21, 22 & 27, T-40-N, R-29-E, G.85.R.M., APACHE COUNTY, ARIZONA.

JUNE, 1971 SCALE, 4"= 1 MILE

#### **BLACK ROCK FIELD**

**Operator:** 

**RIM Southwest Corporation** 

Bond Company\*:

Indian lands, evidence of bond posted with BIA

(

RLI Insurance Co. \$150,000 BIA Nationwide Bond No. RLB0003993

Date of Bond:

11/26/01

Date approved:

\* Pursuant to Commission motion of October 31, 1997, no bond required with State of Arizona upon evidence of bond posted with the BIA.

## Permits covered by this bond posted with the BIA:

Dry Mesa Field 077 106 <u>115</u> <u>852</u> 907 Black Rock Field <u>559</u>





Covernor

State of Arizona

## Arizona Geological Survey 416 W. Congress, Suite 100

416 W. Congress, Suite 100 Tucson, Arizona 85701 (520) 770-3500



Larry D. Fellows
Director and State Geologist

February 13, 2001

**CERTIFIED MAIL** 

Mr. Robert L. Vesco Vice-President RIM Southwest Corporation 5 Inverness Drive East Denver CO 80112

Re: Release of State-wide Performance Bond CD #2578904

Dear Mr. Vesco:

This will acknowledge evidence of RIM Southwest Corporation's bonding with the U.S. Department of the Interior, Bureau of Indian Affairs. As a result, the referenced certificate of deposit and executed release form are enclosed.

Sincerely,

Steven L. Rauzi

Steven C. Kan

Oil & Gas Administrator

**Enclosures** 

## SECURITIES SAFEKEEPIN 1700 WEST WASHINGTON ST. - PHOENIX, ARIZONA 85007

DATE: 02/05/01	STATE AGENCY NO.
STATE AGENCY ARIZONA GEOLOGICAL SURVEY/OIL&G	AS COMM. State Treasurer's Use Only
COMPANY CHUSKA ENERGY CO. / Harken Sout	hust corpy
1850 MT DIABLO BLVD STE 640	
WALNUT CA 94500	•
DOMESTIC FOREIGN	<u> </u>
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C.D. NO.: 2578904 /	EASE
ACCT NO.: 8272-4968/	
BANK: VALLEY NATIONAL BANK OF ARIZONA	
MATURITY DATE: 05/30/90 INTEREST	RATE: 7.30 % = 12.1 (1.1)
AMOUNT \$ 25,000.00 /	
STATE TREASURER VALIDATION NO.	
STATE TREASURER VALIDATION NO.  RECEIVED THE ABOVE RELEASE	STATE AGENCY AUTHORIZATION
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Jane Dee Hull Governor State of Arizona

#### Arizona Geological Survey 416 W. Congress, Suite 100

416 W. Congress, Suite 100 Tucson, Arizona 85701 (520) 770-3500



Larry D. Fellows Director and State Geologist

February 5, 2001

Ms. Debby Harrington RIM Southwest Corporation 5 Inverness Drive East Denver CO 80112

Dear Ms. Harrington:

This will acknowledge receipt of documentation of name change, Organization Report (Form1) and updated Operator's Certificate of Compliance and Authorization to Transport Oil or Gas from Lease (Form 8).

I have enclosed approved duplicate originals of Form 8 for your files.

Sincerely,

Steven L. Rauzi

Oil & Gas Administrator

Stem ( Raiz

**Enclosures** 

# RIM SOUTHWEST CORPORATION 5 INVERNESS DRIVE EAST ENGLEWOOD, COLORADO 80112 303-799-9828

January 30, 2001

Mr. Steven Rauzi
Oil & Gas Program Administrator
Arizona Geological Survey
416 W. Congress, #100
Tucson, AZ. 85701

Re: RIM Southwest Corporation

Dear Mr. Rauzi,

As you requested, please find an Organization Report and documentation evidencing the name change from Harken Southwest Corporation for RIM Southwest Corporation.

Also enclosed is Form 8, in duplicate, for NOG 8707-1139, NOG 8707-1140 and NOG 8707-1142.

Please call me at (303) 799-9828, extension 305, if you have any questions or need anything further. Thank you for your assistance.

Very truly yours,

Debby Harrington
Senior Landman



The RIM Companies
5 Inverness Drive East
Englewood, Colorado 80112
303-799-9828
Fax 303-799-4259
E-Mail: rvesco@rimop.com



Oil & Gas

Acquisitions & Management

Rocky Mountains / Texas

January 25, 2001

Mr. Steven Rauzi Oil & Gas Program Administrator Arizona Geological Survey 416 W. Congress, #100 Tucson, AZ. 85701 (520) 770-3500) Fax (520) 770-3505

RE: Bonding for RIM Southwest Corporation

Dear Mr. Rauzi:

Enclosed please a copy of the approval letter dated May 18, 2000, from the United States Department of the Interior, Bureau of Indian Affairs for RIM's \$150,000 nationwide bond.

Additionally, RIM Southwest Corporation, (formerly known as Harken Southwest Corporation) has a \$25,000 certificate of deposit, certificate # 2578904, with the State of Arizona, maturing April 2, 2001. Please take the necessary action to release this certificate of deposit.

If you need any further information regarding the above referenced information, please contact me at extension 206. Thank you for your help.

Sincerely yours,

Robert L. Vesco, Vice-President
Secretary/Treasurer

n

The RIM Companies 5 Inverness Drive East Englewood, Colorado 80112 303-799-9828 Fax 303-799-4259 E-Mail: rvesco@rimop.com



Oil & Gas Acquisitions & Management Rocky Mountains / Texas

January 25, 2001

Mr. Steven Rauzi Oil & Gas Program Administrator Arizona Geological Survey 416 W. Congress, #100 Tucson, AZ. 85701



RE: Name Change of Harken Southwest Corporation

Dear Mr. Rauzi:

Enclosed please find the State of New Mexico filed copy of "Articles of Amendment to the Articles of Incorporation" changing "Harken Southwest Corporation's" name to "RIM Southwest Corporation" ("RIM"). The corporation's federal tax identification number has not changed (85-0284260). RIM's address is 5 Inverness Drive East, Englewood, Colorado 80112.

Additionally, the officers of RIM Southwest Corporation are as follows:

President

Stephen W. Rector

Vice President

Rene' Morin William J. Holcomb

Vice President

VP, Secretary/Treasurer Robert L. Vesco

Additionally, enclosed is a copy of RIM Operating, Inc. and RIM Offshore, Inc.'s "United States Department of the Interior, Bureau of Indian Affairs, Nationwide Oil and Gas Bond Number RLB0001937" in the amount of \$150,000, along with Bond Rider to Assume Liability Number 1 and RLI Insurance Company's Power of Attorney. With your concurrence, RIM would like to add RIM Southwest Corporation as an additional principal to this bond. Please coordinate with us regarding this matter.

If you need any further information regarding the above referenced information, please contact me at extension 206.

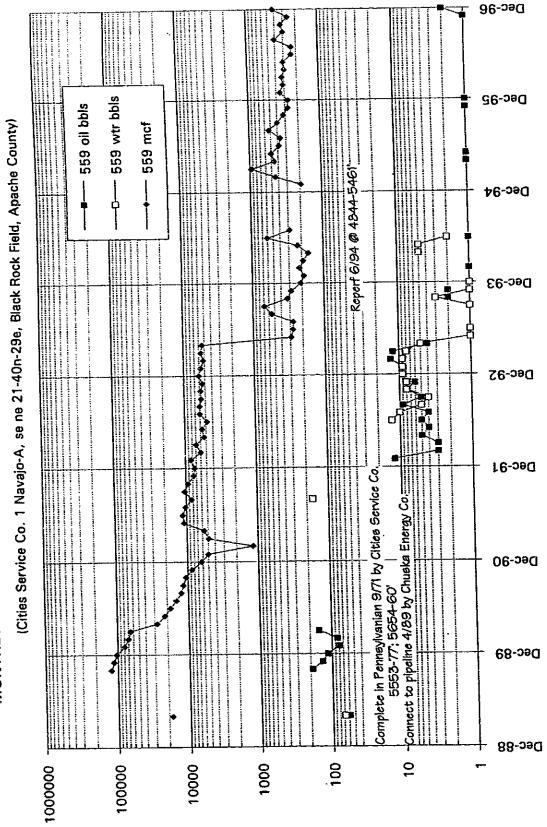
Sincerely yours,

Secretary/Treasurer

Operator CHUSKA ENERGY COMPANY (Hatken Southwest Cotp.) VALLEY NATIONAL HANK SARIZONA Amount \$25,000.00 Bond Company Date Approved /B/o/n/d/ /N/o// DATE Permits covered by this bond: 559 581 610 (P+A 11-21-95) 615 (P & A 5/10/91) 868 EXPIRED 869 (Junked & Abandoned 05/90) 873 875 881

C

MONTHLY PRODUCTION AT 1 BLACK ROCK (559), ARIZONA: APR 1989 - DEC 1996



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HARKEN

ENERGY CORPORATION

MAR 1984 ARIZONA GEÖLOĞICAL SURVEY

March 11, 1994

State of Arizona Oil & Gas Conservation Commission 845 N. Park Avenue, Suite 100 Tucson, AZ 85719

NOG 8702-1139 Re:

NOG 8702-1140

NOG 8702-1142

Black Rock Well No.'s 1, 3, 5, 8 and 12

Gentlemen:

Please be advised that Harken Southwest Corporation no longer has a Farmington, New Mexico office. Therefore, please lirect all future correspondence, regarding regulatory issues, to the undersigned at the letterhead address.

Thank you for your cooperation.

Very truly yours,

Rachelle Montgomery

Production Administrator

RM/jkw

2505 N. Highway 360 / State 800 / Grand Practic, Texas 75050 P. O. Drawer 612907 / Dallas, Texas 75264 GT 495 COOR F Pax 317-452 4473



## HARKEN SOUTHWEST CORPORATION

(formerly Chuska Energy Company)

March 2, 1994



Mr. Steven Rauzi Oil & Gas Program Administrator Arizona Geological Survey 845 Northpark Ave., Suite 100 Tucson, Arizona 85719

Re: Chuska Energy Company-Arizona Statewide Bond for Drilling of Wells

Dear Mr. Rauzi:

Please be advised that with regard to the above re renced bond we are herewith enclosing documentation relating to a name change. Chuska Energy Company has now changed its name to Harken Southwest Corporation. Copies of the official documentation relating to this change of name are enclosed. We would appreciate the Arizona Geological Survey changing their records to style the above referenced bond as follows:

Harken Southwest Corporation, formerly Chuska Energy Company

Sincerely

HARKEN SOUTHWEST CORPORATION

Dale Brooks Treasurer

DB:le Enclosures cc:Bruce N. Huff

2505 NORTH HIGHWAY 360 SUITE 800 • GRAND PRAIRIE, TEXAS 75050
P.O. DRAWER 612007 • DALLAS, TEXAS 75261 • PHONE: (817) 695-4900 • FAX: (817) 652-4455

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THE RESERVE

## HARKEN SOUTHWEST CORPORATION

(formerly Chuska Energy Company)

January 28, 1994

We are pleased to announce that Chuska Energy Company has changed its name to Harken Southwest Corporation. This is in line with the February, 1993 merger with Harken Exploration Company.

Harken Southwest Corporation will continue to be located at 3315 Bloomfield Highway, Farmington, New Mexico 87401. Our telephone number will remain (505) 326-5525.

Please reflect this name change on all future correspondence.

Thank you for your assistance in this matter. We look forward to working with you as Harken Southwest Corporation.

Sincerely,

BARRY A. WIELAND Operations Manager





## CHUSKA ENERGY COMPANY

315 N. BEHREND • FARMINGTON, NEW MEXICO 87401 • PHONE: (505) 326-5525

P.O. BOX 780 • FARMINGTON, NEW MEXICO 87499

# 4559

April 26, 1990

Mr. Daniel J. Brennan Oil and Gas Conservation Commission 5150 N. 16th Street, Suite B-141 Phoenix, Arizona 85016

Dear Dan:

Chuska has received and reviewed your letter dated April 17, 1990. Our comments pertaining to that letter are discussed below.

Chuska did not file completion reports for the Black Rock No. 1 and No. 3, and does not intend to. In the case of the Black Rock No. 1, the well was tested for five days and later production into a pipeline was initiated. These activities are reported by Sundry Notice. Since Chuska did not work over the well, a completion report is not appropriate.

The Black Rock No. 3 was simply turned on for gas sales. This activity is reported by Sundry Notice.

As you are aware, Chuska operates a central facility at Black Rock Field where separation of condensate, gas, and water occurs, along with compression. The installation of separation equipment on individual wells is not practical since oil and water trucks cannot negotiate the mountain roads during the winter months. Wet gas is produced from each well into the gathering system, and ultimately to the facility. The measurement of this wet gas at each well is not practical or accurate due to slugs of fluid hitting the orifice plate and "painting" the meter chart.

Chuska addresses this problem by periodically moving a test separator on to each well, which measures gas, condensate, and water rates. These tests are used to allocate monthly production to each well. We believe the resulting production reported for each well is accurate.

Chuska cannot comply with your request for individual meters on each well. The cost involved to facilitate accurate measurement is extreme, and the winter operation of the field would be very difficult. C

The Black Rock Field central facility does not include a gas plant. It's major purpose is compression of gas from the Black Rock No. 2. Condensate and water are removed from the wet gas produced to comply with the gas quality provisions of our gas sales contract.

We hope this answers the concerns you raised in your letter of April 17, 1990. Should you wish to discuss these matters further, please contact Tom McCarthy at 505-326-5525.

Sincerely,

H. Melle Myers

Vice President of Production

HMM:bnp File:TRM\BRPIPELN.1&3



#### Oil and Gas Conservation Commission

STATE OF ARIZONA

5150 N. 16th STREET, SUITE B-141 PHOENIX, ARIZONA 85016 PHONE: (602) 255-5161

April 17, 1990

Mr. Don S. Barnes Operations Manager Chuska Energy Company 315 N. Behrend Farmington, NM 87401

Dear Don:

It has been brought to my attention that we have not received a completion report on the Black Rock No. 1 or on the Black Rock No. 3 well. We are enclosing copies of Commission Form No. 4 Well Completion or Recompletion Report for your convenience.

You may recall our trip to Black Rock last year. At that time we reminded you that each well's production should be metered separately. You told us that you would be having the meters installed in a few weeks. We notice, however, that you are still flowing the wells through a central meter. Please arrange to have this corrected.

We are also enclosing copies of Form 21, Gasoline Plant Report, for your convenience in reporting liquid hydrocarbons separated from the gas stream there at Black Rock. If you have a computerized reporting system which includes the information we require, either for gas production, our Form 16 - Monthly Producers Report, for separated liquid hydrocarbons, Form 21 - The Gasoline Plant Report, we will accept certified copies to save you additional overhead.

Thank you for your cooperation.

Very truly yours,

Daniel J. Brennan Executive Director

Encl.

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## CHUSKA ENERGY COMPANY

559 515 581

315 N. BEHREND • FARMINGTON, NEW MEXICO 87401 • PHONE: (505) 326-5525

November 9, 1989

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
5150 N 16th STREET
SUITE B141
PHOENIX AZ 85016
ATTN: DANIEL J BRENNAN

Mr Brennan:

Enclosed is the Monthly Production Report for the month of October for the Black Rock Lease  $\underline{\text{NOG-8702-1116}}$ .

As you are aware, we are currently producing into a common production facility and pipeline. Currently, we are in the process of obtaining a portable test unit in which individual well tests can be obtained.

If you have any questions regarding this please do not hesitate to contact me at (505) 326-5525.

Sincerely

DONALD S BARNES Operations Manager

DSB/tlb Enclosures

File: WP\BRENNAN.TLB

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#### Oil and Gas Conservation Commission

STATE OF ARIZONA

5150 N. 16th STREET, SUITE B-141 PHOENIX, ARIZONA 85016 PHONE: (602) 255-5161

BEFORE THE OIL AND GAS CONSERVATION COMMISSION OF THE STATE OF ARIZONA

In the matter of the Hearing called by the Oil and Gas Conservation Commission of the State of Arizona for the purpose of considering:

> CASE NO. 62 ORDER NO. 56

The application of Chuska Energy Company to establish a rule for 160-acre spacing in the Black Rock Field, Apache County, Arizona

#### ORDER OF THE COMMISSION

This cause was considered at 10:05 A.M. on September 15, 1989 at Phoenix, Arizona by the OIL AND GAS CONSERVATION COMMISSION OF THE STATE OF ARIZONA, hereinafter referred to as the COMMISSION.

The COMMISSION, a quorum being present, having considered the facts presented and being fully advised in the premises, finds as follows:

#### FINDINGS:

- (1) THAT the COMMISSION has jurisdiction of the subject matter thereof, pursuant to ARS 27-504 and 27-516 A.12.
- (2) THAT adequate geological and engineering data has been presented to the COMMISSION to conclude that the Paradox formation in the subject area is a pool and a separate common source of supply of gas and associated hydrocarbons.
- (3) THAT 640-acre spacing will not adequately drain the reservoir, resulting in waste of the resource.
- (4) THAT spacing of less than 160 acres per well would result in drilling of unnecessary wells.

Chuska Energy Company Page - 2 -

- (5) THAT 160 acres is not less than the maximum area that can be effectively drained in an efficient and economical manner by a single well producing gas and associated hydrocarbon from the Paradox formation in subject area.
- (6) THAT it is in the best interest of the people of the STATE OF ARIZONA that the application for 160-acre spacing in Black Rock Field, Apache County, Arizona be approved.

#### THEREFORE the COMMISSION orders:

(1) THAT there be established 160-acre spacing units for the production of gas and associated hydrocarbons in the following area:

#### T40N-R29E G&SRB&M

Sec 7, W $1/2$ a	and SE 1/4		N 1/2 and	SE 1/4
8, S 1/2	·	20,	NE 1/4	
9, S 1/2		21,	A11	
15, W 1/2		22,	A11	
16, All		23,	SW 1/4	
17, All		26,	NW 1/4	
2.,		27,	N 1/2	•

#### T40N-R28E G&SRB&M

Sec	1.	All	Sec	11,	All
	-	All	Sec	12,	All

- (2) THAT the 160-acre spacing units shall correspond with governmental quarter sections according to the protracted governmental survey of the area.
- (3) THAT except as provided in Section 4 below, no gas well shall be drilled closer than 660 feet from the outer boundary of any quarter section, in the area spaced.
- (4) THAT the following existing wells are designated as the unit wells for the spacing unit in which they are located even though they are exceptional locations.

O&G Permit #	Name	Spacing Unit		
115	Dry Mesa (Texas Pacific)	SE 1/4 Sec 2 T40N-R28		
615	138-3Navajo Chuska (American Fuels) Black Rock 2 (lNavajo AC)	NE 1/4 Sec 17 T40N-R291		
581	Chuska (Am Fuel, CSO) Black Rock 3 (1-16 Navajo)	NW 1/4 Sec 16 T40-R29E		

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Chuska Energy Company Page - 3 -

(5) THAT the producing interval to which this order applies is the Pennsylvanian Paradox formation correlative with the interval 4567 feet to 5558 feet in the well Chuska Energy (American Fuels) Black Rock #2 (lNavajo AC) located in Section 17, T40N-R29E, Apache County, Arizona.

OIL AND GAS CONSERVATION COMMISSION

J. Dale Nations, Chairman

DATE  $\frac{9/29/80}{}$ 

(SEAL)

ATTEST:

Daniel J. Brennan Executive Director

DATE Defelera 1889

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Chuska Energy Company Page - 3 -

(5) THAT the producing interval to which this order applies is the Pennsylvanian Paradox formation correlative with the interval 4567 feet to 5558 feet in the well Chuska Energy (American Fuels) Black Rock #2 (1Navajo AC) located in Section 17, T40N-R29E, Apache County, Arizona.

OIL AND GAS CONSERVATION COMMISSION

J. Dale Nations, Chairman

DATE 9/29/89

(SEAL)

ATTEST:

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Daniel J. Brennan Executive Director

DATE Detreed 1889



## CMUSKA ENERGY COMPANY

315 N. BEHREND • FARMINGTON, NEW MEXICO 87401 • PHONE: (505) 326-5525

January 26, 1989

State of Arizona Oil and Gas Commission 3110 N. 19<sup>th</sup> Ave., Ste. 190 Phoenix, Arizona 85015

Attention: Mr. Dan Brennan, Director

Re: Commingling Zones In Black Rock Field, Apache County

Dear Mr. Brennan:

Chuska Energy Company has received permission to re-enter three (3) wells in the Black Rock Field, Apache County Arizona, Township 40N Range 29E. Through conversations with your office, it was discovered that all of the zones we intend to re-enter and test had been commingled. No commingling order had been issued by The Oil and Gas Commission. Chuska is ready to go forward with this project but we need to resolve the commingle problem. Our contention is that since the field is already commingled we should be allowed to administratively receive permission to produce the zones together. We will submit a formal request to this effect, but would like to have permission to proceed with our present plans, which do not call for the zones to be separated. We can not see that any benefit will result from separation of the intervals. Great expense will result from having to change procedures that would require us to set plugs between zones just to separate zones that are already commingled. This expense would come not only form the extra time required to set the plugs, but form the need to then move a rig to location and retrieve the plugs so that the well can be place on production. We realize and appreciate that this is unorthodox, but the mitigating circumstances lead us to believe that our request is justified in this case. It is critical to all parties concerned, especially Chuska and The Navajo Nation, that this work be allowed to proceed without being hindered by the need to wait on permission to commingle zones.

The attached pages contain a table showing all wells on Chuska's lease, a map showing well locations, structure maps on top of the Pinkerton Trail and Mississippian Formations, and information on each well. The table is arranged so that pressure data on each zone can be easily compared. The well name number and location are listed first. The "Notes" column contains information that is not listed elsewhere in the table. This information contains DST data on zones that are not of primary interest to Chuska. It has any message of interest concerning the well and its productive characteristics and if it is plugged. Following the "Notes" column are separate columns for each of the primary zones of interest. In these columns are listed any pressure information available. Pressure measurements comes from two sources; the primary source is DST (Drill Stem Test) data;

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the secondary source is production tests. The DST data is best suited to determine formation pressure because the bottom hole pressure (BHP) is measured directly. Production test pressure information requires that the fluid level in the production string be known in order to calculate BHP's (if a bottom hole pressure bomb was not in place during the test). Determination of this fluid level is often only a good guess, making the BHP difficult to determine. Unfortunately not all wells have DST information, but there is enough DST data in different zones to see the small pressure differential between all zones of interest to Chuska. Numerous production tests were run on many of the wells, however not much pressure data was reported. Pressure measurements on production tests are often flowing pressures with little way to convert them to accurate BHP's. For this reason, not all production tests were recorded in the table. Only those tests that had shut-in or bottom hole recorded gauges were reported. The well data sheets show a well bore schematic with casing strings, packers, plugs (both mechanical and cement), and perforations. The perforated intervals are listed along with stimulation treatments. Other data such as logs run, production tests, initial potential, and well status is recorded.

Examination of the pressure data will demonstrate that in most zones the bottom hole pressure ranges from 1200 to 1500 psi across the field. The fluctuation of pressure in different zones of the same well is also in the 1200 to 1500 psi range. For this reason, we do not feel that significant cross flow will occur between any of the intervals if they are produced into a common well bore. Should our production testing reveal substantial pressure differential, we would of course want to separate zones. Our best economic interest is served in this manner.

Water is produced from different formations at Black Rock. We do not have water analyses that enable us to determine compatibility of waters from different formations. There is no data to support any scaling or other damaging tendencies of mixing waters from separate zones.

The structure maps show that the Pennsylvanian and Mississippian formations are closed. Zones commingled in this field will not effect other fields in the area.

Our plans call for commencement of work on February 3, 1989. You have scheduled a hearing for February 10, 1989. In all likelihood, we will begin work prior to the hearing. We have confidence The Commission will see the benefits of allowing this request.

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Sincerely,

she alexande John Alexander

Production Manager



#### Oil and Gas Conservation Commission

STATE OF ARIZONA

3110 N. 19th AVENUE, SUITE 190 PHOENIX, ARIZONA 85015 PHONE: (602) 255-5161

September 21, 1938

Chuska Energy Company
P.O. Box 98
Farmington, New Mexico 87499

Attention: Bill Bunton

Dear Bill:

Enclosed are three approved plans of workover for the following wells.

Permit #	<u>Operator</u>	Lease	Location
581	Chuska	1 Navajo "C"	16,40N-29E.
559	Chuska	l Monsanto, Navajo "Λ"	21,40N-29E.
615	Chuska	1 Navajo "ΛC"	17,40N-29E.

Upon successful completion of any of these wells, please send in a completed copy of Form 4 for our records. (copy enclosed). We are also enclosing copies of other forms you will need when you have a successful gas well completion. (Forms 3, 7, 8, 11, 12, 13, 14, 18, 20).

If you should have to plug any of them, our rules require approval of the plan (copy of application enclosed) and at least 24 hours notice to allow us time to get up there to witness the plugging (Form 9, Form 10 enclosed).

You have our best wishes and hopes for successful completion.

Very truly yours,

Daniel J. Brennar Director

DJB:1r Encl. ج.

March 5, 1975

Mr. Baymon Gililland Northwest Pipaline Corp. P. O. Box 1526 Salt Lake City, Utah 84402

Dear Mr. Gililland:

Enclosed are the followings logs you requested this date:

- Marathon Oil Navajo #1, Permit #274
   Dual Induction-Laterolog & Sonic Log-Gamma Ray
- Cities Service Monsanto Navajo #1, Permit #559
  Perforating Depth Control, Borehole Compensated
  Sonic Log-Gamma Ray, Sidewall Neutron Porosity Log,
  Proximity Log-Microlog and Dual Induction-Laterolog
- 3. Cities Service Monsanto C#1, Permit #581
  Borehole Compensated Sonic Log-Gamma Ray
  Sidewall Neutron Porosity Log

You are free to make copies of these logs as you wish. Please return them as soon as possible.

Also see attached invoice for reproduction costs on the miscellaneous data sheets enclosed.

Very truly yours,

Mrs. Rhema Brandt Secretary to W. E. Allen Director, Enforcement Section

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Encs.

Los returned 3-17-75

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OFFICE OF

#### Gil and Gas Conservation Commission

STATE OF ARIZONA

4515 NORTH 7TH AVE. PHOENIX, ARIZONA 85013 PHONE: (602) 271-5161

DATE: November 14, 1974

TO: All American Fuels Wells

Apache County

FROM: W. E. Allen, Director Enforcement Section

Talked with Robert Schreiber, Navajo Tribe, today regarding the above referenced wells. The leases have expired on all but one well, I think it is the Navajo #B-1, SE/SW Section 9-T40N-R29E. The Tribe has taken over all wells except the one with the unexpired lease, including the two drilled by Cities Service.

The final disposition of these wells are under consideration by the Tribe. They may try to produce some wells themselves or may offer some or all for sale to the highest bidder. Supposedly they will notify this office of their ultimate decision. In the meantime our hands are tied. We can do nothing except hold unto the cash bond posted by American Fuels.

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October 24, 1974

Memo from W. E. Allen, Director Enforcement Section

Memo to the following files:

Cities Service Monsanto 1-A Navajo Sec 21-T40N-R29E, Apache Co., #559

American Fuels Navajo B-1 Sec 9-T40N-R29E, Apache Co., #608

American Fuels Navajo C-1 Sec 6-T40N-R29E, Apache Co., #610

American Fuels Navajo E-1 Sec 31-T41N-R28E, Apache Co., #613 Cities Service Monsanto C-1 Navajo Sec 16-T40N-R29E, Apache Co., #581

American Fuels Navajo M-1 Sec 16-T41N-R30E, Apache Co., #609

American Fuels Navajo 0-1 Sec 3-T36N-R28E, Apache Co., #612

American Fuels Navajo AC-1 Sec 17-T40N-R29E, Apache Co., #615

On this date I contacted Thomas Lynch, Minerals Supervisor, Bureau of Indian Affairs, Window Rock, Arizona, regarding the wells drilled on the Reservation by American Fuels. Mr. Lynch informed me that all the leases on which American Fuels had drilled holes had reverted to the Navajo Tribe. The Tribe is considering leaving the wells in their present shut-in status and offering them for sale to the highest bidder. A final decision has not been made at this time.

Mr. Lynch also said that the Tribe was considering the pros and cons of producing the two Cities Service wells or offering them for sale.

Mr. Lynch requested that this office not bring any action against American Fuels for the time being. He will keep us informed of any decision or action taken by the Tribe.

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September 17, 1974

Memo from W. E. Allen, Director Enforcement Section

Memo to files:

Cities Service Monsanto 1 Navajo R Sec 21-T40N-R29E Apache County, Permit #559 Cities Service Monsanto 1 Navajo - C Sec 16-T40N-R29E Apache County, Permit #581

Ted Boston with the Land Department of Cities Service informed me during telephone conversations on the 9th and 16th that owernship of the above referenced wells had apparently reverted to the Navajo Tribe. Approximately one year ago Cities Service assigned and sold these two wells to American Fuels. American Fuels was never able to produce the wells or never made an effort to produce the wells and the lease on these wells expired thereby allowing the Tribe to assume ownership.

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OFFICE OF

### Gil and Gas Conservation Commission

STATE OF ARIZONA

4515 NORTH 7TH AVE. PHOENIX, ARIZONA 85013 PHONE: (602) 271 5151

April 1, 1974

Mr. C. R. Robinson American Fuels Corporation 2921 Carlisle Blvd., N.E., Suite 200 Albuquerque, New Mexico 87110

Re: Cities Service Monsanto 1-A Navajo Sec 21-T40N-R29E Apache County, Permit #559 Cities Service Monsanto C-1 Navajo Sec 16-T40N-R29E Apache County, Permit #581

Dear Mr. Robinson:

The above referenced wells at your request are being placed under your \$25,000 cash blanket bond.

To avoid confusion regarding the wells now covered by your \$25,000 bond, we are listing the following wells that this Commission shows to be under this bond. If the following inventory of wells agrees with your list, please sign and return one copy to this Commission.

Cities Service Monsanto 1-A Navajo Sec 21-T40N-R29E, Apache Co., #559

American Fuels Navajo B-1 Sec 9-T40N-R29E, Apache Co., #608

American Puels Navajo C-1 Sec 6-T40N-R29E, Apache Co., #610

American Fuels Navajo E-1 Sec 31-T41N-R28E, Apache Co., #613 Cities Service Monsanto C-1 Navajo Sec 16-T40N-R29E, Apache Co., #581

American Fuels Navajo M-1 Sec 16-T41N-R30E, Apache Co., #609

American Fuels Navajo 0-1 Sec 3-T36N-R28E, Apache Co., #612

American Fuels Navajo AC-1 Sec 17-T40N-R29E, Apache Co., #615

American Fuels Navajo B-2 Sec 10-T40N-R29E, Apache, #621

very truly yours,

W. E. Allen, Director Enforcement Section

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Date ( pil 12, 1976

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April 30, 1974

Mr. C. R. Robinson American Fuels Corporation 2917 Carlisle Blvd., N.E. Albuquerque, New Mexico 87110

Re: Cities Service Monsanto 1-A Navajo
Sec 21-T40N-R29E
Apache County, Permit #559
Cities Service Monsanto C-1 Navajo
Sec 16-T40N-R29E
Apache County, Permit #581

Dear Mr. Robinson:

Your letter to this Commission dated March 26, 1974 requested the above referenced wells to be placed under your bond. In our reply to this request dated April 1, 1974, we requested that you sign and return to this Commission one copy of this letter to insure that your records were in agreement with ours. As of this date we have not received the signed copies.

Until we receive your approval of the number of wells that American Fuels presently has under bond, we cannot release Cities Service from their bonding obligations.

Very truly yours,

W. E. Allen, Director Enforcement Section

WEA/rlb

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OFFICE OF

#### Gil and Gas Conservation Commission

STATE OF ARIZONA

4515 NORTH 7TH AVE. PHOENIX, ARIZONA 85013 PHONE: (602) 271-5161

April 1, 1974

Mr. C. R. Robinson American Fuels Corporation 2917 Carlisle Blvd., N.E. Albuquerque, New Mexico 87110

Re: Cities Service Monsanto 1-A Navajo Sec 21-T40N-R29E

Apache County, Permit #559

Cities Service Monsanto C-1 Navajo Sec 16-T40N-R29E Apache County, Permit #581

Dear Mr. Robinson:

The above referenced wells at your request are being placed under your \$25,000 cash blanket bond.

To avoid confusion regarding the wells now covered by your \$25,000 bond, we are listing the following wells that this Commission shows to be under this bond. If the following inventory of wells agrees with your list, please sign and return one copy to this Commission.

Cities Service Monsanto 1-A Navajo Sec 21-T40N-R29E, Apache Co., #559 Cities Service Monsanto C-1 Navajo Sec 16-T40N-R29E, Apache Co., #581

American Fuels Navajo B-1 Sec 9-T40N-R29E, Apache Co., #608 American Fuels Navajo M-1 Sec 16-T41N-R30E, Apache Co., #609

American Fuels Navajo C-1 Sec 6-T40N-R29E, Apache Co., #610 American Fuels Navajo O-1 Sec 3-T36N-R28E, Apache Co., #612

American Fuels Navajo E-1 Sec 31-T41N-R28E, Apache Co., #613 American Fuels Navajo AC-1

Sec 17-T40N-R29E, Apache Co., #615

American Fuels Navajo B-2 Sec 10-T40N-R29E, Apache, #621

Very truly yours,

W. E. Allen, Director Enforcement Section

WEA/rlb

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American Fuels Corporation

TELEPHONES (505) 345-3507 (505) 345-5518

SUITE 200 2921 CARLISLE BOULEVARD, N. E. ALBUQUERQUE, NEW MEXICO 87110

March 26, 1974

Oil and Gas Conservation Commission State of Arizona 4515 North 7th Avenue Phoenix, Arizona 85013

Attention: Mr. W. E. Allen, Director **Enforcement Section** 

Re: Cities Service-Monsanto #1-A Navajo Section 21-T40N-R29E Apache County Permit No. 559

> Cities Service-Monsanto #1-C Navajo Section 16-T40N-R29E Apache County Permit No. 581

Dear Sir:

We request that the above referenced wells be placed under our bond, thereby releasing Cities Service from their obligations.

If there are any questions, please contact us at the above address.

Very truly yours,

Barbara Cunningham Secretary to C. R. Robinson

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September 24, 1973

American Fuels Corporation 2917 Carlisle Blvd., N.E. Albuquerque, New Mexico 87110

Re: Cities Service Monsanto #1-a Navajo Section 21-T40N-R29E Apache County Permit No. (559) Cities Service Monsanto #C-1 Navajo Section 16-T40N-R29E Apache County Permit No. 581

Attention: Ms. Nita I. Macaw

Gentlemen:

You have previously advised this Commission that you have assumed ownership and operation of the above referenced wells. Will you please indicate to this Commission your willingness for these wells to be covered under your existing bond.

Your letter indicating your acceptance of these wells under your existing bond should list the wells by name and legal description. This information is necessary before the Commission can release Cities Service from their bonding obligations.

Thank you for your cooperation.

Very truly yours,

W. E. Allen, Director Enforcement Section

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CITIES SERVICE OIL COMPANY

Cities Service Building Box 300 Tulsa, Oklahoma 74102

September 19, 1973

Oil and Gas Conservation Commission State of Arizona 4515 North 7th Avenue Phoenix, Arizona 85013

Attention Mr. W. E. Allen, Director Enforcement Section

> Re: Cities Service Monsanto #1-A Navajo Section (21)-T40N-R29E Apache County, Arizona Permit No (559)

> > Cities Service Monsanto #C-1 Navajo Section (16-T40N-R29E Apache County, Arizona Permit No. 581

#### Gentlemen:

In reference to your letter of September 4, 1973, please be advised that Cities Service Oil Company and Monsanto Company assigned and sold the subject leases and wells to American Fuels Corporation. The assignment was dated May 18, 1973 and delivered to American Fuels Corporation on June 14, 1973. The address of the purchaser and the locations of the wells are as follows:

American Fuels Corporation 2921 Carlisle Boulevard, N.E. Albuquerque, New Mexico 87110

Cities Service Monsanto #1-A Navajo Well located 1,980' FNL and 1,050' FEL of Section 21, Township 40 North, Range 29 East, G.S.R.M., Apache County, Arizona;

and

Oil and Gas Conservation Commission State of Arizona September 19, 1973 Page Two

> Cities Service Monsanto #C-1 Navajo Well located 2,350' FNL and 2,290' FWL of Section 16, Township 40 North, Range 29 East, G.S.R.M., Apache County, Arizona

> > Yours very truly,

CITIES SERVICE OIL COMPANY

Contracts Landman

RBH/tmb

cc: Mr. C. Robert Crawford

American Fuels Corporation 2921 Carlisle Boulevard, N.E. Albuquerque, New Mexico 87110 Attn: Mr. E. M. Riebold

Monsanto Company
317 First Savings & Loan Building
Midland, Texas 79701
Attn: Mr. V. M. Basil

September 4, 1973

Mr. C. Robert Crawford Cities Service Oil Company 800 Vaughm Building Midland, Texas 79701

Re: Cities Service Monsanto #1-A Navajo Sec 21-T40N-R29E Apache County Permit No. 559

Cities Service Monsanto #C-1 Navajo Sec 16-T40N-R29E Apache County Permit No. 581

Dear Mr. Crawford:

We are aware that Cities Service no longer is the operator of the above referenced wells, however, we have received no notification from Cities Service that the leases involved have been assigned to American Fuels. Therefore, according to our records, Cities Service is still the operator responsible to the State of Arizona.

Will you please submit a copy of the assignment of the leases from Cities Service to American Fuels or a letter advising this Commission of the assignment in order that we may keep our records square.

We are enclosing a copy of the Arizona Revised Statutes that pertain to the change of owernship.

Very truly yours,

W. E. Allen, Director Enforcement Section

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CITIES SERVICE OIL COMPANY

800 Vaughn Building Midland, Texas 79701 Telephone: 915 684-7131 August 7, 1973

Oil and Gas Conservation Commission State of Arizona 4515 North 7th Avenue Phoenix, Arizona 85013

Attention: Mr. W. E. Allen, Director

Enforcement Section

Re: Cities Service Monsanto #1-A Navajo

Sec 21-T40N-R29E Apache County Permit No. (559)

Cities Service Monsanto #C-1 Navajo

Sec 16-T40N-R29E Apache County Permit No. 581

## Gentlemen:

Reference is made to your letter of July 16, 1973, addressed to our Hobbs, New Mexico, office wherein you enclosed certain Designation of Operator forms for execution by Cities Service Oil Company. This is to advise that the captioned two wells and the leases upon which they are located have been assigned to American Fuels Corporation and, therefore, Cities is no longer the record title holder of these leases.

Please advise if further information is required.

Yours truly,

CITIES SERVICE OIL COMPANY

C. Robert Crawford

Landman

CRCbd

cc: American Fuels Corporation
2921 Carlisle Blvd., NE
Albuquerque, New Mexico 87110
Attention: Mr. E. M. Riebold

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July 16, 1973

Cities Service Company P. O. Box 69 Hobbs, New Mexico 88240

Re: Cities Service Monsanto #1-A Navajo Sec 21-T40NNR29E Apache County Permit No. 559

> Cities Service Monsanto #C-1 Navajo Sec 16-T40N-R29E Apache County Permit No. 581

## Gentlemen:

We have been advised that the operations of the above referenced wells have been assigned to American Fuels Corporation.

Please complete the enclosed Designation of Operator forms and return one copy of this form for each well involved to this office.

Very truly yours,

W. E. Allen, Director Enforcement Section

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OFFICE OF

## Gil and Cas Conservation Commission

STATE OF ARIZONA

4515 NORTH 7TH AVE. PHOENIX, ARIZONA 85013 PHONE: (602) 271-5161

July 16, 1973

Mr. C. R. Robinson American Fuels Corporation 2917 Carlisle Blvd. N.E. Albuquerque, New Mexico 87110

Re: Cities Service Monsanto #1-A Navajo Sec 21-T40N-R29E Apache County - Permit No. 559

> Cities Service Monsanto #C-1 Navajo Sec 16-T40N-R29E Apache County - Permit No. 551

Dear Mr. Robinson:

We have received your notification advising this Commission that American Fuels is now the operator of the above referenced wells. We notice on your Sundry Notice and Reports on Wells that each well is indicated to be an oil well.

On the basis of the Potential Tests submitted by Cities Service, these wells are declared to be gas wells. The Cities Service Monsanto #1-A Navajo was drilled as an oil location and does not have proper spacing for a gas well, (See Rule 105, Paragraph B).

Before the Monsanto #1-A Navajo well can be produced, permission to produce this well must be secured from this Commission after Notice and Hearing.

Incidentally, the field in which these wells are located has been designated by Cities Service as the Black Rock (Pennsylvanian).

If you need additional information, please advise.

Very truly yours,

W. E. Allen, Director Enformment Section

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November 14, 1972

Mr. K. D. Van Horn Cities Service Oil Company P. O. Box 4906 Midland, Texas 79701

Re: Monsanto #1-A Navajo, Permit #559 Monsanto-Navajo C-1, Permit #581 T-40N-R29E Apache County

Dear Mr. Van Horn:

Thank you for your suggested names for the field in which the above referenced wells are located. This Commission has named the field the Black Rock (Pennsylvanian) Field.

We hope this meets with your approval.

Very truly yours.

W. E. Allen, Director Enforcement Section

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CITIES SERVICE OIL COMPANY



Box 4906 Midland, Texas 79701 Telephone: 915 684-7131

November 3, 1972

Mr. W. E. Allen Oil and Gas Conservation Commission State of Arizona 4515 N 7th Avenue Phoenix, Arizona 85013

Dear Mr. Allen:

Your letter of October 25, 1972 addressed to our Mr. Ed Wilder requested our recommendation for a field name to be assigned to our discovery well Monsanto Navajo #1 in Apache County, Arizona. Our three choices of names for this field listed in their preferential order are as follows:

- 1. Black Rock
- 2. Black Point

3. Carrizo

K. D. Van Horn

Manager, Southwestern Region

Production Division

KDV:REG:11

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October 25, 1972

Mr. Ed Wilder Cities Service Oil Company P. O. Box 69 Hobbs, New Mexico 88240

Re: Monsanto #1-A Navajo, Permit 559
Monsanto-Navajo C-1, Permit 581
T-40N-R29E
Apache County

Dear Mr. Wilder:

The above referenced No. 1-A Navajo is the discovery well in this field. In as much as this is a new field, the Commission desires to give a name to this field for identification purposes.

It would be appreciated if you would submit three choices of names. From this list of three, the Commission will pick one to officially apply to this field. Should you have no desire to assist in the naming of this field, the Commission will arbitrarily assign a name.

Your cooperation is appreciated.

Very truly yours,

W. E. Allen, Director Enforcement Section

WEA/rlb

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January 20, 1972

Mr. C. W. Spencer District Geologist Texaco Petroleum Products P. O. Box 6216 Cherry Creek Station Denver, Colomdo 80206

Dear Mr. Spencer:

In reply to your letter of January 17, 1972, requesting information on the Cities Service #1 Monsanto-Navajo "A" and the #1 Monsanto-Navajo "B", please be advised that both of these wells were drilled under confidential status. The Cities Service confidential period of #1 Monsanta A will terminate March 14, 1972. At this time, this office will be able to divulge any information that we may have.

In all probability if you would contact Mr. C. D. Robertson of

Cities Service Oil Company P. O. Box 69 Hobbs, New Mexico 88240

that he will be able to furnish other information that you have requested.

Any information that the Commission is at liberty to give on other wells, will be furnished.

Very truly yours,

W. E. Allen, Director Baforcoment Section

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Post Office Box 6216 Cherry Creek Station Denver, Colo. 80206

January 17, 1972

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Arizona Oil & Gas Commission 4515 North 7 Avenue Phoenix, Arizona 85013

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Gentlemen:

0.002.532.528

Has the Cities Service #1 Monsanto-Navajo "A", in Section 21-40N-29E, Apache County, been completed? Our records indicate this well reached total depth sometime in July, 1971. If the completion data on this well is available, we would appreciate having a copy of it.

Another Cities Service well, the #1 Monsanto-Navajo "B", in Section 27-40N-29E, was apparently spudded in October, 1971. It was scheduled as a 6100 foot test and it is possible that this well has reached total depth at this time. Any data you could give us on this well would also be appreciated.

Sincerely yours,

C.W. Spencer C.W. Spencer District Geologist

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October 27, 1971

General Insurance Company of America 4347 Brecklyn Avenus HE Seattle, Washington 98105

Re: Cities Service Uil Company Monsanto #1 Mavejo SE/NE Section 21-T40N-R29E Apache County Our File #359

he: Performance Bond 6603388-136

### Centlement

The above referenced well is now covered under your bond \$60338-165. Therefore, the Oil and Gus Conservation Commission of the State of Arizons authorises cancellation of Bond #603368-136.

Very truly yours,

W. E. Allen, Director Enforcement Section

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cc: Mr. P. G. Schmidt cc: Cliff D. Robertson Operator CITIES SERVICE OIL COMPANY

Sond Company GENERAL INSURANCE COMPANY OF AMERICA Amount \$5,000

Bond No. 603388-136 Date Approved 6-21-71

Permits covered by this bond:

559

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PERFORMANCE BOND

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	Bond Serial No. 603388-136
hat we: CITIES SERVICE OIL COMPANY	
	Oklahoma
f the County of Tulsa	in the State of
o principal and GENERAL INSURANCE COME	PANY OF AMERICA
s principal, and GENERAL INSURANCE COMP	
Seattle, Washington	
	SS WITHIN the State of Arizona.
Tive '	a and the Oil and Gas Conservation Commission, hereinafter Thousand and no/100 dollars (\$5,000.00)
awful money of the United States, for which payment, went	nd assigns jointly and severally, firmly by these presents.
The conditions of this obligation are that, whereas the above to stratigraphic purposes in and upon the following described	bounder principal proposes to drill a well or wells for oil, gas
Section 21, Township 40 N, Range	29E, Apache County, Arizona
(May be used as blanks	male with all the provisions of the Laws of this State and the
rules, regulations and orders of the Commission, especially w for the proper drilling, casing and plugging of said well or w	with reference to the requirements of A.R.S. § 27-516, providing vells, and filing with the Oil and Gas Conservation Commission the event said well or wells do not produce oil or gas in comain quantities, this obligation is void; otherwise it shall remain in
Whenever the principal shall be, and declared by the Oil and State and the rules, regulations and orders of the Commission	d Gas Conservation Commission in violation of the Laws of this n, the surety shall promptly:
Remedy the violation by its own efforts, or	
sion and the Surety of the lowest responsible bidder, arra	remedy the violation, and upon determination by the Commis- ange for a contract between such bidder and the Commission, and the cost of remedying the violation; but not exceeding, includ- liable hereunder, the amount set forth in the first paragraph
Liability under this bond may not be terminated without wr	ritten permission of this Commission.
WITNESS our hands and seals, this 10th day	of June
WITHERS OUT WATER AND A PORTY	
13.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2	CE OIL COMPANY
R.E. Killackey	Hole all
E. Killackey, Asst. Sec. T. H. Rubey, Mar	nager-Ins. Principal
numbers our hands and seals this 10th day	June June 71
WITNESS our hands and seals this Total day	
GENERAL INSU	RANCE COMPANY OF AMERICA
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By Zudard J	1/2014
Richard J. Kelly,	Attorney-in-Fact
Elkert Pa	Surety, Resident Misona Agent
Gilbert Katt	If issued in a state other than Arisona)
(If the principal is a corporation, the bond should be executed by its duly anti- executes this bond by agent, power of attorney or other evidence of authority	therized officers, with the seal of the corporation affixed. When principal or sure w must accompany the bond.)
	STATE OF ARIZONA
Approved (0-2/-7)	OIL & GAS CONSERVATION COMMISSSION
STATE OF ARIZONA	Bood RECEIVED
OIL & GAS CONSERVATION COMMISSSION	File Two Copies Hinl C 2 163 cm
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GENERAL INSTRANCE COMPANY OF AMERICA

LIMITED POWER OF ATTORNEY

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KNOW ALL MEN BY THESE PRESENTS:

i hat General Insurance Company of America, a washington corporation, according to	rance Company of America, a Washington corporation, does hereby appoi	rat General Insurance Compan	Ger	hat 6	Company	of America	, a Washin	gton corporat	iion, does	. nereby	appo
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FREDERICK G. SCHMIDT &/or RICHARD J. KELLY, Tulsa, Oklahoma
its true and lawful attorney(s)-in-fact, with full authority to execute on behalf of the company fidelity and surety bonds or undertakings and other documents of a similar character issued by the company in the course of its business, and to bind General Insurance Company of America thereby as fully as if such instruments had been duly executed by its regularly
elected officers at its home office, in amounts or penalties not exceeding the sum of
FIVE HUNDRED THOUSAND AND NO/100 DOLLARS (S 500,000.00 )
IN WITNESS WHEREOF, General Insurance Company of America has executed and attested these presents
this day of February, 19 71
HA Hammersla W.D HAMMERSLA, SECRETARY W.D HAMMERSLA, SECRETARY
CERTIFICATE
Extract from the By-Laws of General Insurance Company of America:
"Article VI, Section 12. – FIDELITY AND SURETY BONDS the President, any Vice President, and the Secretary shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided, however, that the seal shall not be pressent to the validity of any such instrument or undertaking."

Extract from a Resolution of the Board of Directors of General Insurance Company of America adopted July

this 10th day of June , 1971.

"On any certificate executed by the Secretary or an assistant secretary of the

559

(i) The provisions of Article VI, Section 12 of the By-Laws, and

(ii) A copy of the power-of-attorney appointment, executed pursuant thereto/and (iii) Certifying that said power-of-attorney appointment is in full force and effect,

the signature of the certifying officer may be by facsimile, and the seal of the Gangary may be a facsimile thereof."

I, W. D. Hammersla, Secretary of General Insurance Company of America, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of this corporation, and of a Power of Attorney issued pursuant thereto, are true and correct, and that both the By-Laws, the Resolution and the Power of Attorney are still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of said corporation



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CITIES SERVICE OIL COMPANY

Certified Copy of Directors' Resolutions

"RESOLVED, that the President, Vice President-Finance, the Treasurer, or the Manager, Insurance Department, be and they hereby are authorized and empowered in the name of and on behalf of this Corporation to sign or execute insurance proofs of loss, including subrogation agreements or loan releases, releases in settlement of claims for loss of and damage to property of this Corporation for amounts not in excess of twenty-five thousand dollars (\$25,000), surety bonds, and their application and/or indemnity agreements, and to furnish letters evidencing the existence of company insurance coverage; and be it further

RESOLVED, that the Property Claims Supervisor, Insurance Department, be and he hereby is authorized and empowered, in the name of and on behalf of this corporation, to sign or execute insurance proofs of loss, including subrogation agreements, for losses not in excess of five thousand dollars (\$5,000), and sign or execute releases in settlement of claims for damages to property of this corporation for amounts not in excess of one thousand dollars (\$1,000); and be it further

RESOLVED, that the President or any Vice President be, and they hereby are, authorized and empowered in the name of and on behalf of this corporation to sign or execute releases in settlement of claims for loss of and damage to property of this corporation."

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JUN 2 1 19/1

O & G CONS. COMM

I, W. O. BROWN, Secretary of CITIES SERVICE OIL COMPANY, do hereby certify that the above and foregoing is a true and correct copy of resolutions regularly and unanimously adopted at a meeting of the Board of Directors of said corporation, duly called and held on the 18th day of March, 1971, at which said meeting a majority of the Directors

was present and voted.

WO.B

June 10, 1971 Dated:

559

CITIES SERVICE OIL COMPANY



Cities Service Building Box 300 Tulsa, Oklahoma 74102

October 22, 1971

Office of Oil and Gas Conservation Commission State of Arizona 4515 North 7th Avenue Phoenix, Arizona 85013

Gentlemen:

SUBJECT: Performance Bonds Nos. 603388-136 & 603388-165

In response to your letter of October 14, 1971, to R. E. Groves, we now attach a Rider to Performance Bond #603388-165, which we understand, upon your approval, you will furnish us with a Release of Bond #603388-136, covering an individual well previously deleted.

We appreciate your cooperation .

Very truly yours,

F. G. Schmidt

F. G. Schmidt Insurance Analyst

FGS/mt

Attachment

cc: Mr. Virgil Tomes, CSO Co., Tulsa, Okla. Alexander & Alexander, Inc., Tulsa, Okla.

RECEIVED OCT 26 19/1

O & G CONS. COMM.

S-443 R3 11/65



PRINTED IN U.S.A.

1/5.1	60 Reas-T	65	
o be attached to and form a part of Bond N	0-7 X00000-1	11-12-86	<del></del>
cecuted by Cities Service Oi	1 Company	and and a second	, cs
rincipal and by GENERAL INSURANCE C	L	AFRICA, as Surety,	
incipal and by GENERAL INSURANCE C	Om Air or A	a -ti Com	mission 1-W
fovor of _State of Arizona and th	ne Oil and Ga	as Conservation Com	mission , and effec-
ve as of 6th day of October, 19	971		
ve as or		÷	•
a consideration of the mutual agreements l	verein contained	the Principal and the Surety	hereby consent to charging
	11 located	in the SE/4. NE/4 of	f Section 21, Town-
ncluding the previously drilled hip 40N, Range 29E, Apache (	County, Ariz	ona covered by bond	number 603388-136.
mp 4010, Range 292, 119-111	,	• .	
		•	
	÷		•
			•
•			
	-		
	. •		
Nothing herein contained shall vary, alt	er or extend any	provision or condition of thi	s bond except as herein ex-
	•		19 71
pressly stated. This rider is effective on	the <u>Lanu</u>	_ edy of	
1 + 3 + 3 + 3 = 1			•
ATTEST:	·	CITIES SERVICE (	OIL COMPANY
			Principal
- 110 R		<del>72+(</del> /	$\mathcal{Q}$ $Q$ .
W.O. Janua		By TI Dubou M	lanager-Insurance Internation
Secreta	iry .		
Accepted:		GENERAL INSURANCE	COMPANY DE AMERICA
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		By Frederice	D. Schmidl
	Obliges	Frederick G.	COIMICE, Attorney-in-Pac
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			- DENTED IN U.S.

O & G CONS. COMM.

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OFFICE OF

## Gil and Gas Conservation Commission

STATE OF ARIZONA

4515 NORTH 7TH AVE. PHOENIX, ARIZONA 85013 PHONE: (602) 271-5161

October 14, 1971

Mr. R. E. Groves
Region Administrative Manager
Cities Service Oil Company
Box 4906
Midland, Texas 79701

Re: Performance Bond #603388-136

Dear Mr. Groves:

Your blanket bond in the amount of \$25,000 has been received and also your request for release of the above referenced bond which covers your well located in the SE/4, NE/4 of Section-21-T-40N-R29E, Apache County, Arizona. Since the above described well was drilled prior to the issuance of Bond #603388-165 for \$25,000, it will be necessary for your bonding company to issue a rider to the blanket bond specifically covering the previously drilled well. As quickly as this rider is received we will release your Bond #603388-136 in the amount of \$5,000.

An approved copy of the blanket bond is enclosed for your records.

Very truly yours,

W. E. Allen, Director Enforcement Section

WEA/rlb

Enc.

cc- Mr. C. D. Robertson

# 559

۲,

CITIES SERVICE OIL COMPANY



Box 4906 Midland, Texas 79701 Telephone: 915 684-7131

October 12, 1971

State of Arizona Oil and Gas Commission 4515 North Seventh Avenue Phoenix, Arizona 85103

Attention: Mr. W. E. Allen, Director

Gentlemen:

Cities Service Oil Company filed a \$5,000 Performance Bond, (Serial No. 603388-136) in June, 1971 covering Section 21-T40N-R25E, Apache County, Arizona. Since additional drilling in the State of Arizona is anticipated, we are filing a \$25,000 Blanket Bond (Serial No. 603388-165) with your office. Upon receipt of this Blanket Bond, we request that you release and return the \$5,000 Single Performance Bond previously filed.

Yours very truly,

R. E. Groves Region Administrative Manager Southwestern Region

Production Division

REG:dlp

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OCT 1419/1

O & G CONS. COMM.

#559

September 10, 1971

Cities Service Oil Company P. O. Box 69 Hobbs, New Mexico 88240

Re: Cities Service Oil Company Monsanto 1-A Section 21-T40N-R29E (Navajo) Apache County Our File #559

ATTENTION: Mr. C. D. Robertson

Dear Cliff:

We have received your Sundry Notices and Reports on Wells, Four Point Back Pressure Test, and Well Completion or Recompletion form and Logs on the above referenced well. Everything is in good order except we must have the Well Completion or Recompletion Report (Form 4) on our own form. A supply of which is enclosed.

Cliff, it would be appreciated if you could secure for us another copy of each of the logs that were run on this well.

Very truly yours,

W. E. Allenm Birector Enforcement Section

WEA/rib

Enc.

(

September 9, 1971

Mr. E. F. Motter Cities Service Oil Company P. O. Box 4906 Midland, Texas 79701

Dear Mr. Motter:

I learned yesterday that you hadn't received the copy of Rules and Regulations of the Oil and Gas Conservation Commission that you requested on August 30. We are indeed sorry for this delay, however, you may have received this booklet by now, since it together with a letter was mailed to you on August 30.

In the event that the information you requested has not yet reached your desk, you might refer to Section 25-516, Paragraph B, of the Arizona Revised Statutes for the information you requested pertaining to a hearing. Resident council is not required.

Again we are sorry for this delay. Of we can be of any further assistance, please call on us.

Very truly yours,

W. E. Allen, Director Enforcement Section

WEA/rlb

Enc.

(

August 30, 1971

Mr. E. F. Motter Cities Service Oil Company P. O. Box 4906 Midland, Texas 79701

file #559

Dear Mr. Motter:

Enclosed is a copy of the Rules and Regulations of the Oil and Gas Conservation Commission. Section 27-516, Paragraph B, of the Arizona Revised Statutes refers to the Hearing.

Resident council is not required.

If we can be of any further assistance, please feel free to call upon us at any time.

Very truly yours,

W. E. Allen, Director Enforcement Section

WEA/rlb

Enc.

August 24, 1971

Mr. E. Y. Wilder Cities Service Oil Company P. O. Box 69 Hobbs, New Mexico 88240

> Re: Cities Service Oil Company Monsanto 1-A Navajo 1980 FNL & 1050 FEL Section 21-T40N-R29E Apache County Our File #559

Dear Mr. Wilder:

The above referenced well was originally drilled as an oil well with 80 acres designated to your particular well. Should this well be completed as a gas well, it will be necessary prior to producing this well, to request a hearing of the Commission for an unorthodox location. Please refer to Rule 105, Section B and C.

Should Cities Service have Section 22 T-40 N R29E under lease, this hearing should be a mere formality. Even though you do not own Section 22, it is of my opinion that securing permission for an unortholox location will pose no problem.

Very truly yours,

W. E. Allen, Director Enforcement Section

WEA/r1b

8-20-71 4559

Mr. Brad Rennett Other Service, Farmington

Enclosed you will find the following forms necessary for completion of oil and gas wells.

- 1. Well Status Report and Gas-Oil Ratio Tests, Form No. 5.
- 2. Potential Test and Request for Allowable Oil Wells, Form No. 6.

Also later on you will need the following form:

1. Reservoir Pressure Report, Form No. 7.

U.S. ASSESSED.

CITIES SERVICE OIL COMPANY



Box 4906 Midland, Texas 79701 Telephone: 915 684-7131

June 23, 1971

State of Arizona Oil and Gas Conservation Commission 4515 North Seventh Avenue Phoenix, Arizona 85103

Attention: Mr. W. E. Allen, Director

Gentlemen:

Cities Service Oil Company made application for a drilling permit on the Monsanto-Navajo No. 1, located in Section 21, Township 40N, Range 29-E, Apache County, Arizona. It is believed all necessary papers have been filed with the exception of the organization report, which is being forwarded herewith.

R. E. Groves

Region Administrative Manager Southwestern Region

**Production Division** 

Attachment

cc: Mr. E. Y. Wilder Hobbs, New Mexico

RECEIVED

JUN 2419/1

G&G CONS. COMM.

June 21, 1971

Mr. Ed Wilder Cities Service Oil Company Box 69 Hobbs, New Mexico 88240

Re: Cities Service Oil Company Monsanto #1-A Navajo SE/4 NE/4 Section 21-T40N-R29E Apache County Our File #559

Dear Mr. Wilder:

Enclosed please find Receipt No. 2893 covering the \$25 filing fee, an approved copy of your Application for Permit to Drill, an approved copy of the performance bond, and Permit to Drill No. 559.

Also enclosed are miscellaneous instruction sheets pertaining to samples and other requirements of this Commission.

Very truly yours,

W. E. Allen, Director Enforcement Section

ya Enc.

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CITGO

CITIES SERVICE OIL COMPANY

Box 69 Hobbs, New Mexico 88240 Telephone: 505 EX 3-2177

June 18, 1971

Mr. W. E. Allen, Director State of Arizona Oil and Gas Conservation Commission 4515 North 7th Phoenix, Arizona 85013

Dear Mr. Allen:

Attached for your records and information is a Performance Bond in the amount of \$5000 from Cities Service Oil Company. This bond is submitted in compliance with the Arizona rules and regulations to permit Cities Service to drill a well in Section 21, Township 40N, Range 29E, Apache County, Arizona. Also attached is a Power of Attorney form and a certified copy of the Directors! Resolutions.

Please advise if this is not sufficient data to permit Cities Service to drill the proposed location.

Sincerely yours,

CITIES SERVICE OIL COMPANY

C. L. Coffman
District Enginee

CLC/ed

Attachments (2)

RECEIVED

JUN 21 1971

0 & G CONS. COMM.

	ORGANIZA'.	N REPORT		`-
Full Name of the Company, Organization, or Individ CHUSKA ENERGY COMPANY	lual			
Post Office Address (Box or Street Address)				
P O ROX 2118 EARMIN	IGTON, NEW MEXI	co 87499		
Plan of Organization (State whether organization is	a corporation, joint stock ass	ociation, firm or partner	ship, or individual)	į.
NEW MEXICO CORPORATIO				
Purpose of Organization (State type of business in v				
If a reorganization, give name and address of previous	us organization.			
If a foreign corporation, give	(2) Name and post office a		(3) Date of permit to d	o businėss in state
(1) State where incorporated	CT CORPORATION		•	
NEW MEXICO	811 DALLAS AV HOUSTON, TX 7		JANUARY 16	
Principal Officers or Partners (if partnership)	TITL		POST OFFI	CE ADDRESS
NAME		· •	<u> </u>	
		-n n [E]	1850 Mt. Di	ablo Blyd.
DONALD W. RAYMOND	CHAIRMAN/VICE	JPRESIDENT-		, CA. 94296
HARVEY V. RISIEN Jr.	PRESIDENT	김니니		p 410, Ste 700 , Tx. 78209
1	11641 A1141		P.O. Box 21	
MARSHALL C. WATSON \\	YEELBRESTDEN	T	farmington,	NM 87499
		and the state of t		••
	HE-			
0				
	<del> </del>			
			<u> </u>	
DIRECTORS NAME			POST OFFICE ADDR	ESS
				Walnut Crk
DONALD W. RAYMOND		1850 Mt. Dia	ablo Blvd. St	e 640 CA. 94596
HARVEY V. RISIEN Jr.		1250 NE Loop	9 410 Ste. 70	00 San Antonio, Ta
MARSHALL C. WATSON		P.O. Box 21	18 Farmingto	on, NM 87499
		n min		
	- STORE		1 1	
	7/////-12		<u>ر ر</u>	
CERTIFICATE: 1, the undersigned, under the pe	nalty of periury, state that i	on the Vic	e President	of the
CHUSKA ENERGY COMPANY			thy said company to ma	ke this report; and that this
report was prepared under my supervision and o	direction and that the facts	stated therein are true, o	orrect and complete to	the best of my knowledge.
	en. Tanan dan saman dan membenahan dan membenahan dan membenahan dan membenahan dan membenahan dan dan dan dan dan		11/1/14	
		Signature	"He	
			13 SEPT. 8	18
		Date	1,5 02, 3, 0	
			STATE OF ARIZON	vA T
		OIL & G/	AS CONSERVATION	
		ļ	Organization Repor	n

Form No. 1

File One Copy

4/82

OPCANIZATION	REPORT

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Full Name of the Company, Organization, or Individ				
Post Office Address (Box or Street Address)		w <del>est Corporati</del>		<del></del>
P. O. Drawer 612007, Dallas,	, TX 75261 -or- 2	505 N. Hwy 360	, Suite 800,	
Plan of Organization (State whether organization is Corporation		ociation, firm or partner	rship, or individual)	75050
Purpose of Organization (State type of business in v Oil & Gas Explo	oration		·	
If a reorganization, give name and address of previo Changed name from Chuska I	Energy Company			
If a foreign corporation, give (1) State where incorporated	(2) Name and post office ad Corporation	dress of state agent Service Co.	(3) Date of permit to	do business in state
Nevada	530 South 4th Las Vegas, No		1	.980
Principal Officers or Partners (if partnership)  N.A.M.E.	Chairman of these		ILM 1 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FICE ADDRESS
Mikel D. Faulkner	Chairman of the Chief Executive President		Dallas, I	ver 612007 ( 75261
Richard Schroeder	Chief Operating	Officer	11	n
Bruce Huff	Senior Wice Pres Chief Financial		11	II
Larry Cummings	Vice President General Council		ıı	li .
			ļ	,
DIRECTORS NAME / .All of the above	P. O. Draw	er 612007, <u>Da</u> l	las. TX 7526	
		er 612007, Da1		
Don Raymond	r. U. Draw	er 012007, bai	185, 1A /320	<u></u>
	11. 12.			
		MULLI	31-1-	
			The second secon	-
CERTIFICATE: 1, the undersigned, under the pe	enalty of perjury, state that I a	m the Production	on Administrat	or of the
Harken Southwest Corporation	د نزر (company), a	nd that I am authorized	by said company to n	nake this report; and that this
report was prepared under my supervision and d	direction and that the facts-se	ated the ein are true, o	orrect and complete t	the best of my knowledge
	_	Signature Rach	We I DON	ugomery
27.282930317	<b>)</b>	Signature Rach	elle C. Montge	imeny ()
Stor × 19A	J. A.	Date	6/24/94	
MI 1998	5			
SEL JIM 1994  SEL JIM 1994  SEL JUN 1994  SEL JUN 1994  SEL JUN 1994  SEL JUN 1994  SEL JUN 1994  SEL JUN 1994  SEL JUN 1994	89	OIL & GA	STATE OF ARIZO	N COMMISSION
	<u>,5</u> 7		Organization Rep File One Copy	

Form No. 1

559

4/82

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UPERAIU	TRANSPORT OIL OR GAS F	
		Reservoir
ederal, State or Indian Lease Number, r lessor's name if fee lease NOG 8707-113	Field Black Rock	Paradox
Survey or Sec-Twp-Rge	County Apache	State Arizona
Section 16&21-40N-29E		
Harken Southwest Cor		AND THE FORM TO
ADDI	RESS ALL CORRESPONDENCE CONCERN	····
Street 5605 N. MacArthur Blvd. St	rite 400 Irving	State Texas 75038-2617
Above named operator authorizes (name o Giant Industries	f transporter)	
Transporter's street address 5764 Hwy 64	City	State New Mexico 87401
Field address	~ PITT	1219
	Oil dondentate, sas well, sas ças	inghead gas
To transport 100	La brond Condensate	from said lease.
OTHER GA	THERERS TRANSPORTING FROM THIS	
Name of gatherer Western Gas	% transported	Product transported Gas
	DATE	
Change of Condensate Purc (Black Rock #1) & #3)	chaser	
drilling and producing operations on this percentage of the allowable oil or gas proor until cancelled by the State of Arizons CERTIFICATE: I, the undersigned, under Hawkey Southwest Cornora	the penalty of perjury, state that I am the	& Gas Conservation Commission have been complied with above transporter is authorized to transport the above specific and that this authorization will be valid until further not Production Administrator of authorized by said company to make this report; and that the
report was prepared under my supervision	and direction and that the facts stated the	rein are true, correct and complete to the best of my knowled
11-29-95		achelle Contgomery
Date		0-0
Date approved: 11-30-95	 ) 	
STATE OF ARIZO		
By: Stevent. Ra	<u> </u>	
559		
Permit No.	To some	STATE OF ARIZONA
	W. WOI Jane	OIL & GAS CONSERVATION COMMISSION  Operator's Certificate of Compliance & Authorization to

Operator's Certificate of Compliance & Authorization to Transport Oil or Gas from Lease File Two Copies

Form No. 8

\*

(Black Rock #1 & #3)	<u> </u>	·		
	CERTIFICATE OF COM TRANSPORT OIL OR			
ederal, State, or Indian Lease Number, or	Field		Reservoir	
essor's name if fee lease NOG 8707-1139	Black Rock County	_	Paradox State	
Survey or Sec-Twp-Rge Section 16&21-40N-29E	Apache		Arizona	
RIM Sout	hwest Corporati	on		
ADDRESS	ALL CORRESPONDENCE CO	NCERNING THIS F		
Street 5 Inverness Drive East	Englewoo	<u>d</u>	State Colorado	80112
bove named operator authorizes (name of trans Giant Industries	porter)			Ì
Transporter's atreet address	City		State	
5764 Hwy 64 Field Address	Farmingt	on	New Mexico	87401
	Oil, condensate, gas well s	gas, casinghead ga	\$	
To transport 100	% of the Conder	néste	from said lea	ise
	ERS TRANSPORTING FROM T			
Name of gatherer	% transported			
Western Gas	100%	Gas		
Indicate whether or not this certificate is	for a new lease. If not a n	ew lease, indicat	e whether or not it is a chan	ge of operator,
change of lease name, change of gathers	ir, or a consolidation or sub	idivision of lease	es and give effective date of t	nange.
Harken Southwest Corpor	ation changed is	ts name to	RIM Southwest Co	orporation
See attached copy of Ar				
Incorporation.				
he undersigned certifies that the rules and regula and producing operations on this lease, except as at the allowable oil or gas produced from the above state of Artzona Oil & Gas Conservation Commiss	noted above, and that the abov re described property, and that t sion.	e transporter is auti his authorization wil	horized to transport the above spe Il be valid until further notice or un	cified percentage
CERTIFICATE: I the undersigned, under the pen RIM Southwest Corporati	OTI		•	of the
	(company), and man	•	said company to make this report.	
was prepared under my supervision and direction	ı and that the facts stated therei	n are true, correct a	and complete to the best of my kind	wiedge.
		. / .	) 001	
		1	-1/1/00	
1/26/01		Bus	il flill	<u> </u>
Date	<del> </del>	Signature	Rene Morin, Vic	<u>e Presiden</u>
Date approved: 2-5-0/				
STATE OF ARIZON OIL & GAS CONSERVAȚIQN C				
Br. Stevenl. Ran				
ECG COI	1000		STATE OF ARIZONA	
Permit No. 337,367	(25456)	OIL & G	AS CONSERVATION CO	
Mail two copies of completed form to:	<b>▶</b> . ′ % }	Operator's	Certificate of Compliance & A	wthorization to
Of & Gas Program Administrator	- cool (a)		Transport Oil or Gas from Le	ase
Arizona Geological Survey 418 W. Congress #100	田"、司	Form No. 8	File Two Copies	
Mail two copies of completed form to: Of & Gas Program Administrator Arteona Geological Survey 416 W. Congress #100 Tucson, AZ 85701-1315	ARIZONA ARIZONA SEOLOGICAL SEOLOGICAL	10000		2/96
is.	ARIZONA SEOLOGICAL SURVEY			200
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TYPE OR PRINT LEGIBLY FILE DUPLICATE ORIGINALS FILING FEE: \$100.00

ARTICLES OF AMENDMENT TO THE ARTICLES OF INCORPORATION DEC 2 2 2000

CORPORATION DEFARTM

22/4384

Pursuant to the provisions of Section 53-13-4, NMSA 1978, the undersigne corporation adopts the following Articles of Amendment to its Articles of Incorporation:

ARTICLE ONE: (Note 1) The Corporate name and NMSCC# of the corporation

Harken Southwest Corporation #300000 1070770

ARTICLE TWO: (Note 2) The following amendment to the Articles of Incorporation was adopted by the <u>Sole Stareholder</u> of the corporation on <u>Recember 21, 2000</u> in the manner prescribed by the New Mexi Eusiness Corporation Act:

(Insert amendment or attach exhibit, if needed - Indication should be give to reflect which article(s) number has been amended.)

ARTICLE CHE is emended and shall read as follows:

"The name of the corporation is RIM Southwest Corporation."

ARTICLE TERBS: (Note 3) The number of shares of the corporation outstandiate the time of such adoption was 20,000 and the number of share entitled to vote thereon was 20,000.

ARTICLE FOUR: (Note 4) The designation and number of outstanding shares of each class entitled to vote thereon as a class were as follows:

CLASS

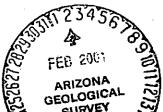
6

NUMBER OF SHAPES

One class only of Common Stock

20,000

ARTICLE FIVE: (Note 3) The number of shares voting for such amendment was 20,000 and the number of shares voting against such amendment was 0



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ARTICLE SIX: (Note 3) The number of shares of each class entitled to vo thereon as a class voted for and against such amendment, respectively, w CLASS NUMBER OF SHARES

POR

AGAINST

Common -- only one class

20,000

ARTICLE SEVEN: (Note 4) The manner, it not set forth in such amendment, which any exchange, reclassification, or cancellation of issued shares provided for in the amendment shall be affected, is as follows:

inapplicable

DATED: Cecember 2

MA STATE COLLOCATION COMMISSION DEC 222000

Harken Southwest Corporation

(Note 1) CORPORATE NAME

(Note 5) Its Stephen W. Rector

(Note 5) Its / Vice President

Under penalty of perjury, the undersigned declares that the foregoing document executed by the corporation and that the statements contained therein are true and correct to the best of my knowledge.

Harken popinwest Corporation

(Note 5) (One of the above officers.sign:

Stephen W. Rector, President



# RESOLUTION OF THE SOLE SHAREHOLDER OF HARKEN SOUTHWEST CORPORATION

A Special Meeting of the sole shareholder of HARKEN SOUTHWEST CORPORATION, (the "Corporation"), was held beginning at 33, Mountain Time, on Druckday December 21, 2000, pursuant to which the sole shareholder consented to, voted in favor of and adopted the following resolution:

RESOLVED, that the Articles of Incorporation of the Corporation be amended in the form attached hereto by changing the name of the Corporation as follows:

## ARTICLE I

#### <u>NAME</u>

The name of the corporation is RIM Southwest Corporation.

IN WITNESS WHEREOF, the undersigned has executed this written consent to be effective as of the 2 day of December 2000.

RIM SW HOLDING CORPORATION, a Colorado corporation

Name: Stephen W. Rector

Its: President



#680332 v1

**⊕**:

# ORGANIZATION REPORT

Full Name of the Company, Organization, or Individu RIM SOUTHWEST CORPORATIO	al N (FORMERLY KNOWN_	AS HARKEN SO	UTHWEST CORPORATION)
Mailing Address and Phone Number			
5 INVERNESS DRIVE EAST, Plan of Organization (State whether organization is	englewood, colorad		303) 799-9828 ip. or Individual
Corporation	a corporation form proces accome		
Purpose of Organization (State type of business in	which engaged)		-
Oil & Gas Production/Sal	les		
If a reorganiztion, give name and address of pravio $N/A$			
If a foreign corporation give (1) State where incorporated	(2) Name and mailing address CT Corporation		(3) Date of permit to do business in state
New Mexico	322 5 N. Central Avenue		1/16/88
Principal Officers or Partners (if partnership)	Phoenix, AZ 850	4	MAILING ADDRESS
NAME			
			5 Inverness Drive East
V. A. Isaacs, Jr.	Chairman, Board	of Directors	Englewood, CO 80112
7			5 Inverness Drive East
Stephen W. Rector	President		Englewood, CO 80112
			5 Inverness Drive East
Rene' Morin	Vice President		Englewood, CO 80112 5 Inverness Drive East
<u> </u>	Vice President/S	ecretary/	Englewood, CO 80112
Robert L. Vesco	Treasurer		Post Office Box 2058
William J. Holcomb	Vice President		Farmington, NM 87499
HIIIIam o. norcomo		•	
			•
DIRECTORS NAME V. A. Isaacs, Jr.		SAME A	MAILING ADDRESS AS ABOVE
Stephen W. Rector		II.	11
Rene' Morin		ff II	
Robert L. Vesco			11
ROBERT E. Vesco			
William J. Holcomb		11	11
CERTIFICATE I, the undersigned, under the p	penalty of perjury state that I ал	the <u>Secre</u>	tary of the
RIM Southwest Corporati	On (company), and	d that I am authorized	by said company to make this report; and that this
report was prepared under my supervision and	direction and that the facts stated	I therein are true, com	ect and complete to the best of my knowledge.
		RABULL	- Julser
•		Signature Rober	t L. Vesco, Secretary
	3456	-	/25/01
Tall!		Date	
Mail completed form to Oil and Gas Program Administrator Arizona Geological Survey 416 W Congress., \$100 Tucson, AZ 65701	B 2001  RIZONA OLOGICAL SURVEY		
₽ FE	8 200		STATE OF ARIZONA
65	OLOGICAL 77	OIL & GAS	CONSERVATION COMMISSION
Mail completed form to	OLUGEY CO		Organization Report
Oil and Gas Program Administrato			File One Copy
416 W Congress., #100	2020101191	Form No. 1	•
Tucson, AZ 65701	المال المال الم		2/96